

Appendix 4.2 ECU Scoping Opinion

This page is intentionally blank.



The Scottish Government
Energy Consents Unit

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

Knockcronal Wind Farm
ITPEnergised
On behalf of Statkraft Ltd

March 2021

CONTENTS

1	Introduction.....	Page 2
2	Consultation.....	Page 3-4
3	The Scoping Opinion.....	Page 4-6
4	Mitigation Measures.....	Page 7
5	Conclusion.....	Page 7-8
	ANNEX A.....	Page 9
	ANNEX B.....	Page 99-107

1. Introduction

1.1 This scoping opinion is issued by the Scottish Government Energy Consents Unit on behalf of Scottish Ministers to Statkraft/Knockcronal Wind Farm Ltd, a company incorporated under the Companies Acts with company number 11964184 and having its registered office at 19th Floor, 22 Bishopsgate, London. EC2N 4BQ (“the company”). This is in response to a request from ITP Energised on behalf of Statkraft/Knockcronal Wind Farm Ltd dated 03 December 2020 for a scoping opinion under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 in relation to the proposed Knockcronal Wind Farm (“the proposed development”). The request was accompanied by a scoping report.

1.2 The proposed development is located approximately 4.2 km south of Straiton, 11 km south-west of Dalmellington and 17.5 km east of Girvan.

The turbine development area comprises an area of approximately 680 hectares (ha) of land, consisting of upland moorland in the south and west of the site, and farmland in the north-east. The surrounding land comprises open moorland to the east and north-east, as well as farmland with some scattered individual properties, with further National Forest Estate commercial forest plantation to the north-west, west, south and south-east.

The Galloway Dark Sky Park buffer zone is adjacent to the turbine development area boundary to the west, south and south-east, with the Dark Sky Park core area approximately 2.7 km south of the nearest proposed wind turbine. To the south-east of the turbine development area lies the Galloway Forest Park International Bird Area. Knockgardner Site of Special Scientific Interest (SSSI), designated for geological fossiliferous exposure, lies approximately 2.7 km North West of the site.

Two residential properties lie within the proposed turbine development area, Linfairn, and Glenlinn Cottage.

The proposed development turbine development area was previously the site of Linfairn Wind Farm application. Linfairn Wind Farm was withdrawn in 2018 and the Applicant has carefully considered the consultee responses to the Linfairn Wind Farm application when contemplating the design and site boundary of the proposed development.

Scottish Ministers are aware that the Applicant is currently exploring the possibility of using borrow pits on the site, the potential impact of any borrow pits should be considered in the EIA.

1.3 The proposed development will consist of 12 turbines with a maximum blade tip height of up to 200 metres as well as associated on-site energy storage system

1.4 In addition to wind turbines, there will be ancillary infrastructure including:

- turbine foundations;
- crane hardstandings;
- site entrance and access tracks;

- on-site access tracks between turbines and from the point of access to the turbines;
- on-site substation and maintenance building with welfare facility;
- energy storage system;
- on site electrical cabling between the wind turbines and the substation and energy storage system;
- temporary construction compound(s), laydown area(s) and concrete batching plant;
- borrow pit search areas; and
- meteorological mast.

1.5 The Company indicates the operational life of the proposed development will be for a period of at least 30 years.

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

2. Consultation

2.1 Following the request for a scoping opinion, a list of consultees was agreed between ITP Energised, and the Energy Consents Unit. Scottish Ministers undertook a consultation on the scoping report and this commenced on 14 January 2021. The consultation closed on 05 March 2021.

Extensions to this deadline were granted to:

- South Ayrshire Council;
- Ayrshire Rivers Trust;
- Crosshill, Straiton and Kirkmichael Community Council;
- Dailly Community Council;
- Glasgow Prestwick Airport;
- Historic Environment Scotland;
- NatureScot; and
- Scottish Rights of Way and Access Society (ScotWays).

Scottish Ministers also requested responses from their internal advisors Transport Scotland and Scottish Forestry. A full list of consultees is set out at Annex A.

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 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 No responses were received from:

- Barr Community Council
- Civil Aviation Authority – Airspace;
- Crown Estate Scotland;
- Mountaineering Scotland;
- Scottish Wildlife Trust;
- SEPA; and
- Visit Scotland.

2.5 As a consequence of a significant cyber-attack affecting its contact centre, internal systems, processes and communications, SEPA were unable to respond to the consultation on this scoping opinion request.

You can find SEPA’s recovery plan here - [service level status](#).

Standing advice and SEPA’s planning guidance is available at <http://sepa.org.uk/environment/land/planning>

If bespoke advice from SEPA is considered essential in advance of submission of your application, please get back in touch with ECU to discuss next steps. It should be noted however that facilitation of further engagement will very much depend on SEPA’s recovery plan progress.

With regard to those other consultees who did not respond, it is assumed 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 the Environmental Impact Assessment 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 had been adopted following consultation with The Highland Council, within whose area the proposed development would be situated. Scottish Environment Protection Agency (“SEPA”), NatureScot (Previously “SNH”) and Historic Environment Scotland (“HES”), were also consulted as statutory consultation bodies, as were other bodies, which Scottish Ministers considered 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 03 December 2020 in respect of 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**.

3.5 Scottish Ministers are satisfied with the scope of the EIA set out in chapter 1.4 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 grid 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, 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 provided information on whether there are any drinking water protected areas or Scottish Water assets on which the development could have any significant effect. Scottish Ministers request that the company contacts Scottish Water (via EIA@scottishwater.co.uk) and makes further enquires to confirm whether there any Scottish Water assets which may be affected by the development, and includes details in the EIA report of any relevant mitigation measures to be provided.

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.

3.9 Scottish Ministers request the Company now review Marine Scotland's generic scoping guidelines for both onshore wind farm and overhead line development 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. (<https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren>).

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.

MSS also provide standing advice for onshore wind farms (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.

3.10 Scottish Ministers consider that where there is a demonstrable requirement for peat landslide hazard risk assessment, the assessment should be 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 assessment and details of mitigation measures. Scottish Ministers are aware that there are areas of class 1 peat within the application site and recommend early engagement with SEPA with regard to the reuse and disposal of excavated peat.

3.11 The proposed viewpoints are given at Chapter 4.2.26 Table 4.1. At this stage Scottish Ministers would request that the additional viewpoints, hub height ZTV, wirelines and photomontages as requested by South Ayrshire Council, NatureScot, Historic Environment Scotland and Community Councils are considered in full.

It is recommended by the Scottish Ministers that the final list of viewpoints and visualisations should be agreed following discussion between the Company South Ayrshire Council Council, Historic Environment Scotland and NatureScot.

3.12 The noise assessment should be carried out in line with relevant legislation and standards as detailed in Chapter 8 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.

3.13 As the maximum blade tip height of turbines exceeds 150m the LVIA, as detailed in Chapter 4 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. Scottish Ministers request that the Company contacts NatureScot and Defence Infrastructure Organisation for further information and advice on Aviation lighting.

3.14 Scottish 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, finalisation of viewpoints, transport routes, cultural heritage, designated sites and cumulative assessments and they 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 EIA. 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, in tabular form, of all mitigation measures proposed in the environmental assessment, where that mitigation is relied upon in relation to reported conclusions of likelihood or significant 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 other 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 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 Governments Energy Consents Unit at the pre-application stage and before proposals reach the design freeze.

5.6 Applicants are reminded that there will be limited opportunity to materially vary the form and consent of the proposed development once an application is submitted.

5.7 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.

5.8 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 size no more than 10 megabytes (MB).

In addition, a separate disc containing the EIA report and its associated documentation in electronic format will be required.

Carolanne Brown
Energy Consents Unit
March 2021

ANNEX A

Consultation

List of consultees

South Ayrshire Council	A1-A16
Ayrshire River Trust	A17-A19
British Horse Society	A20-A23
BT	A24
Civil Aviation Authority – Airspace*	
Crown Estate Scotland*	
Defence Infrastructure Organisation	A25-A26
Fisheries Management Scotland	A27
Galloway & Southern Ayrshire Biosphere	A28
Galloway Fisheries Trust	A29
Glasgow Prestwick Airport	A30
Historic Environment Scotland	A31-A36
John Muir Trust	A37
Joint Radio Company	A38-A39
Mountaineering Scotland*	
NATS Safeguarding	A40-A50
NatureScot (Formally known as Scottish Natural Heritage)	A51-A62
RSPB Scotland	A63
Scottish Environment Protection Agency (SEPA)*	
Scottish Rights of Way and Access Society (ScotWays)	A65-A69
Scottish Water	A70-A71
Scottish Wild Land Group (SWLG)	A72
Scottish Wildlife Trust*	
The Coal Authority	A73
Visit Scotland*	
West of Scotland Archaeology Service (WOSAS)	A76
Barr Community Council*	
Crosshill, Straiton and Kirkmichael Community Council	A77-A92
Dailly Community Council	A93-A98

Officials from Scottish Forestry, Transport Scotland and Marine Science Scotland areas of the Scottish Government provided internal advice at A64, A74 to A75 and A99 to 107 respectively.

*No consultee responses were received.

Place Directorate

Service Lead – Planning and Building Standards: Julie Nicol

Planning Service, County Buildings, Wellington Square, Ayr, KA7 1DR
 Tel: (01292) 616177
 Email: alastair.mcgibbon@south-ayrshire.gov.uk
 Our Ref: Knockcronal
 Your Ref: ECU00002181
 Date: 4 March 2021



Carolanne Brown
 Energy Consents Unit
 5 Atlantic Quay
 150 Broomielaw
 Glasgow
 G2 8LU
By email

Dear Carolanne,

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 EIA Scoping Report (October 2020)

SITE ADDRESS **Proposed Knockcronal Wind Farm, 4.2km south of Straiton, South Ayrshire**

PROPOSAL: **Construction and operation of Knockcronal Windfarm comprising approximately 12 wind turbines to tip height of 200m (Application to be submitted to ECU under S36 of the Electricity Act 1989)**

Thank you for your email of 14th January 2021 inviting South Ayrshire Council's response as a consultee to the scoping opinion received by Scottish Ministers from ITP Energised on behalf of Statkraft Ltd. I acknowledge with gratitude your agreement to extend the period for issuing our Opinion. In keeping with the breadth of environmental topics acknowledged within the applicant's Scoping Report, South Ayrshire Council has consulted internally with various departments whose respective remits pertain to those topics. The various responses to that intra council consultation are contained in the enclosed Annex and to avoid duplication their collective content forms an integral part of South Ayrshire Council's consultation response. Responses have yet to be received from the Ayrshire Roads Alliance and the West of Scotland Archaeology Service (WoSAS); however, I can confirm that these shall be forwarded on when available.

In addition to the observations and suggestions regarding scope and methodology contained in the Annex, South Ayrshire Council would particularly like to bring to the applicant and ECU's attention the publication of the revised South Ayrshire Landscape Wind Capacity Study. The updated version is dated August 2018 and is available on the Council's website. Accordingly, we would request that the assessment within the LVIA chapter of the EIA Report addresses and references the relevant findings of the 2018 Study amongst the sources it draws from, and that any mitigation/design response to the same is clearly articulated.

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 partial consideration as to the actual merits of the proposal of the proposal upon its anticipated consultation, in due course, at S36 application stage.

Yours faithfully

Mr Alastair McGibbon
Supervisory Planner, Priority Projects

ANNEX

Carol Anderson Landscape Consultant

The Scoping Report sets out the methodology and scope of the Landscape and Visual Impact Assessment (LVIA). The Council agrees with the methodology to be adopted for the LVIA and with the Study Area being defined as 45km from the proposal.

We agree that the Landscape Character Types (LCTs) used in the 2018 South Ayrshire Landscape Wind Capacity Study should form the basis for the LVIA and that the assessment of effects on landscape character should focus on an area within 20km of the wind farm. The key concerns of the Council are likely significant adverse effects on the character of the *Intimate Pastoral Valley* LCT which covers the Upper Girvan and Stinchar valleys and on the *Rugged Uplands with Lochs and Forest* LCT.

The Council is in agreement with the proposed approach in terms of assessing effects only on the Local Landscape Areas (LLAs) which will replace the existing South Ayrshire Scenic Area designation in the forthcoming Local Development Plan. Significant adverse effects are likely to occur on the character and special qualities of the *Water of Girvan Valley* and the *High Carrick Hills* LLAs; *The Stinchar Valley* LLA could also be significantly affected. Other valued landscapes which could be significantly affected by this proposal include the Merrick Wild Land Area (WLA) and the Galloway Dark Sky Park, as identified in section 4.7 of the Scoping Report. It is agreed that detailed assessment should be provided of all the valued landscapes noted above in the LVIA.

It is requested that a detailed ZTV should be provided in the EIA-R based on an OS 1:50,000 scale map base within approximately 15km of the proposal to allow more accurate appraisal of potential visibility. The representative viewpoints shown on the ZTV and listed in the Scoping Report should be supplemented with additional viewpoints from:

- Cornish Hill – which is a popular destination for walkers and where some visibility is indicated from its summit in Figure 4.3 in the Scoping Report (GR.404 941)
- The B741 east of Straiton where it descends into the village near Largs Farm and offers views over the upper Girvan valley and adjacent uplands (approximately GR.390 052)

A wireline visualisation should also be produced from the minor road in the upper Stinchar valley between Barr and South Balloch where visibility of 1-3 turbines is indicated in the ZTV. It is expected that forestry may provide some screening from this road but it would be useful to establish to what extent. If visibility proves likely to be limited there would be no need to select this viewpoint for detailed assessment in the LVIA.

It is additionally requested that wireline or photo-wire visualisations are produced from the B741 west of the Ladyburn junction in the Girvan valley looking towards the Kilkerran GDL and from within the Blairquhan GDL. These wirelines should either be included in the LVIA or Cultural Heritage sections of the EIA-R in order to fully assess potential effects on views **to** Kilkerran House and its designed landscape, on views **from** the Blairquhan designed landscape and also to inform the assessment of effects on the Water of Girvan Valley LLA.

It is not considered necessary to include a representative viewpoint from the Royal Troon Golf Course (Viewpoint 20 listed in Table 4-1 of the Scoping Report) as this area lies some 30km from the proposal and effects on views are therefore unlikely to be significant. Consideration should also be given to visibility and key views from the Barr Trails recreational routes in the Stinchar Valley.

Lighting effects should be assessed from each of the representative viewpoints and not just from the viewpoints selected to illustrate night-time effects. Effects on the Dark Sky Park should be additionally assessed. While the character of the 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 considered in the LVIA. These qualities should be addressed even if the viewpoint does not lie within the Dark Sky Park Core or Buffer Areas. The cumulative effects of lighting should be considered in relation to nearby proposed wind farms where turbines are of a height necessitating visible aviation lighting. These proposals include the Clauchrie, Craigmaddie, Knockodhar and Carrick wind farms. Although only Clauchrie is at application-stage at present and the others are at scoping-stage, their status may change depending on the cut-off date determined for the LVIA.

ACCON UK Ltd Noise Consultants

ACCON have reviewed the Noise section (Chapter 8) of the scoping report and Appendix 8.1 which details the background noise levels that the applicant proposes to utilise in the noise assessment. ACCON note that the proposed wind farm would occupy the same site as that proposed for Linfairn wind farm which was withdrawn from planning.

The Noise Chapter of the Scoping Report identifies the main relevant guidance documents that ACCON would expect to be used in the noise assessment. These include ETSU-R-97 and IOA Good Practice Guide (GPG) for the assessment of wind turbine noise, and B2 5228-1 and Design Manual for Roads and Bridges (DMRB) for construction and construction traffic noise. The noise assessment should also take account of 'Wind Turbine Development: Submission Guidance Note' (SGN) issued by South Ayrshire Council Environmental Health.

In describing the proposed methodology to be adopted to assess wind turbine noise, the Scoping Report refers to the ETSU-R-97 criteria or noise limits which are derived from the representative baseline background noise levels. ACCON advise that in line with SAC's position on the Linfairn application, it will be appropriate to take account of the SGN is setting noise limits. On this basis for daytime, noise limits should be set at a lower fixed limit of 35 dB L_{A90} or 5 dB above the background noise level, whichever is the higher. Night-time noise limits should be set at a lower fixed limit of 38 dB L_{A90} or 5 dB above the background noise level, whichever is the higher.

The Scoping Report appropriately states that the wind turbine noise assessment will consider the cumulative effects of the operation of the proposed turbines in combination with other wind turbines that are operational, consented or in planning. ACCON confirm this is the correct approach, noting that the relevant wind farms have not been identified at this stage in the Scoping Report.

It is proposed to scope out assessment of ground-borne vibration (from construction and operation of the turbines) and low frequency noise from operation of the turbines ACCON confirm agreement with this approach. The report proposes that noise from the operation of the substation and routine maintenance visits can be scoped out of the assessment. ACCON have not identified a plan or description detailing the proposed substation location. However, on the assumption that it would be located at least 500 m from the nearest dwelling, I would agree it can be scoped out.

Appendix 8.1 sets out the methodology adopted and the results of baseline background noise surveys carried out over a period between November 2017 and January 2018. As detailed in the appendix, ACCON (on behalf of SAC) was consulted on the methodology in advance of the surveys and also attended the installation of the noise monitoring equipment at five of the six monitoring locations. I can confirm that I am content with the methodology used for the noise surveys and that the background noise results presented in Appendix 8.1 have been determined in accordance with the recommendations of the IOA GPG. The results are in line with the background noise levels that would be expected based on my experience of the local area and reviews carried out of previous assessments for the Linfairn application.

South Ayrshire Council Environmental Health

Nb: operational noise conditions will be provided by external consultant procured by SAC

Nb: note distinction between Source and Supply: therefore, the DWQR registered source / well / aquifer / abstraction point must be identified, *PLUS*, the known or assumed (due to lack of knowledge) route of pipe line to the dwelling house/s.

Point 1 (impact on Private Water Supplies) is required prior to planning consent being granted.
Points 2, 3 and 5 are required should consent be granted

The following comments and representations should be complied with to satisfy Environmental Health:

1. Impact on Water - PRIVATE WATER SUPPLIES

The development should not adversely affect the private water supplies in the area

The EU Water Framework Directive (2000/60/EC).

The EU Drinking Water Directive (98/83/EC)

The Private Water Supplies (Scotland) Regulations 2006

The Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017

The Water Supply (Water Quality) (Scotland) Regulations 2001

The Housing Act 1987 Sect. 86, The Water (Scotland) Act 1980 (The Act),

Protecting private water supplies during forestry activities – Guidance www.Forestrywaterscotland.com

Water Supply (Water Quality) Regulations (2016) - BS EN 15975-2:2013 Security of drinking water supply – guidelines for risk and crisis management – Part 2: Risk Management 2013

A report is required detailing how existing supplies will be maintained both qualitatively and quantitatively and sources and connections not adversely affected.

Under the Scottish legislation, if a house does not have an adequate piped supply of wholesome water available within the house, it would fail to meet the tolerable standards.

Environmental Health may be forced to take action to issue a formal Closing or Demolition Order or have the house brought up to the tolerable standard, via the 1987 Housing Act.

There would be no recourse to connect to mains water for most of the properties listed and unlisted.

a) Prior to consent being granted, a water management plan covering water control and the means of drainage from all hard surfaces, structures and borrow pit sites within the site shall be submitted for approval of the planning authority and following approval shall be implemented by the company. For the purposes of this condition “hard surfaces” includes internal access tracks, construction and lay-down areas, turbine pads and crane pads. The details to be submitted shall include the means of protecting surface water and ground water and controlling surface water run-off. The management plan as approved shall then be implemented in full. Evidence MUST include a timeously prepared risk assessment in accordance with EN15975-2:2013 – Guidelines for risk and crisis management – Part 2:” Risk Management” (above)

Reason: To minimise impacts on groundwater quality and hydrology.

b) Prior to consent being granted, the applicant shall submit to the planning authority a site-specific hydrogeological report (not desk top study), which has been physically carried out by officers or reporters on site, and which contains a review of the risks to all private water sources, their catchment areas, their abstraction points, the private water supplies, the supply lines, and private water user properties, that have the potential to be affected by the development, during development and in the future. The list of private water properties, supplies, supply lines, sources, abstraction points and catchments must include those which are not situated within the marked development boundary areas, but whose private water source catchment areas have the potential to originate within the marked development boundary areas, and thus have the potential to be affected by the development in the future. The Work shall not commence on site prior to the written approval of the Planning Authority being obtained.

The report should include a field survey of all private water user properties, supplies, sources, abstraction

points and their potential catchment areas, and focus on the effects of the development on the quality and quantity of water supplied to all private water users both within and out-with the boundary of the proposed site that have the potential to be affected by the development. The field survey should be carefully designed as to promote meaningful response rates and should include qualitative research carried out through direct consultation with South Ayrshire Council Environmental Health, private water supply property owners, users, tenants, landowners, and other Relevant parties. It is required that field visits be carried out once agreement has been reached with South Ayrshire Council Environmental Health.

A conceptual site model should be included as this is key to developing a robust assessment of all risks to all potentially affected private water supplies. Attention should also be given to possible leachate generation, and any other type of run off or fluid leakage at any Borrow Pit excavations, including possible contamination during development phase, or in the future, through blasting, for the same reasons as previously covered. The conceptual site model does not replace the need for documenting procedures, or methodologies for proper site investigation or remediation, in accordance with regulatory requirements. The conceptual site model should include illustrative as well as written representations of the processes, and potential impacts to support informed decision making.

Reason: In order to maintain a secure and adequate quantity and quality water supply to all properties with private water supplies that may be affected by the development, now and in the future.

c) Prior to consent being granted, all private water supply user properties, their private water supply lines, sources, abstraction points and potential catchment areas are to be identified and shown as marked on maps, to scale, on minimum of 1:25000, in order to assess risk to catchment areas of the sources that private water supply water is potentially drawn from. This is to give realistic comparison to the siting's of the proposed development, construction, turbines, structures, (including battery storage compounds), over ground / underground cabling, access tracks etc.

Reason: In order to maintain a secure and adequate quantity and quality water supply to all properties with private water supplies that may be affected by the development, now and in the future.

d) Forestry – Removal, Harvesting, Replanting, Compensatory Planting:

Prior to consent being granted, in relation to all forestry works and development, all private water supply user properties, their private water supply pipes and lines, sources, abstraction points and potential catchment areas are to be identified and shown as marked on maps, to scale, on minimum of 1:25000, as part of the

development risk assessment, in order to assess risk to catchment areas of the sources that private water supply water is potentially drawn from. This is to give realistic comparison to the siting of removal plans, lay down areas, vehicle park areas, replanting, potential chemical contamination, and all associated forestry works in relation to private water supplies.

Reason: In order to maintain a secure and adequate quality water supply to all properties with private water supplies that may be affected by the development, now and in the future.

e) Emergency Action Plan

An EAP should be submitted stating clearly who would be responsible, when they would be required to take action, where this would be implemented and what action and mitigation would be implemented for any emergencies arising. The EAP should detail who the emergency contacts would be 24/7, with contact telephone numbers and email addresses, to be provided to private water supply users South Ayrshire Council Planning department.

Reason: In order to maintain a secure and adequate quality and quantity of private water supply to all properties with private water supplies that may be affected by the development and to minimise impacts on groundwater quality and hydrology.

f) Specific concerns relating to private water supplies are as follows:

the following is noted:

4.2.4 - discusses traffic monitoring - There is no clear indication of the proposed access road to the site entrance, and no clear indication of the proposed site entrance and access road point. It is not acceptable to add this information at a later date.

4.5.2 - Assessment Methodology - has been a desk top study of the development area, and with a good working knowledge of the area. This is not acceptable or sufficient information to allow informed decisions.

4.6 - Mitigation - states that this "will evolve" - there is no clear indication of what potential problems could occur, where, when, how, and how these will be dealt, and by whom and when. There is no indication of severity of problems that could occur, nor of future ones that could arise and of procedures in place to deal with them. There is not sufficient information provided to allow informed decisions.

7.0 - through 7.6.2 - discussions on hydrogeological matters, abstractions and water monitoring - these discussions purely deal with SEPA enforced legislation, and do not touch at all on private water supplies, sources, properties that use them nor the catchments for these supplies, which leaves them vulnerable. Environmental Health, South Ayrshire Council are the enforcement agency for private water supply legislation within South Ayrshire Council areas. Informed decisions cannot be made, due to complete lack of information required.

7.6.3 discusses specific procedures are to be developed for fuel handling & storage, and emergency spill and mentions ECoW. Best practise is also mentioned, but nothing specific is offered or demonstrated. There is not enough information to make an informed decision

7.7 Potential Impacts

7.7.2 First mention of Private Water Supplies

Environmental Health requires a substantially greater amount of information before an informed decision can be realised with regard to private water supply users, owners, properties, supply lines, source abstractions and the catchment areas for same.

15. Forestry

There is not enough information given to allow informed decisions from Environmental Health, who require to be consulted regarding forestry at all stages, to allow for decisions to be made regarding the safety, quality and quantity of private water supplies, their catchments, their abstraction points, supply lines and the properties who use them.

The above list is not finite, but given as examples, and does not remove the need to give further information on other issues, or areas of a risk assessment.

The request for information is not solely based on private water supplies that rely on only surface water for their catchment or supply.

There are many private water supply users in the area within the marked boundary proposed, and also out with the marked boundary proposed, who take their private water supply from surface waters, and whose catchment areas for abstraction may well have a threat to the water quality and quantity imposed upon them, including well into the future. The areas around Straiton are now flagged on Environmental Health South Ayrshire Councils water drought list, and properties have been experiencing difficulties, including supplies running dry, at certain times of the year in the past three years. Emergency bottled water has had to be delivered to some private water supply properties due to this occurring, in accordance to the Scottish Governments aid to assist emergency drinking water supplies to private water supply users.

2. Shadow Flicker

Following a complaint to the Planning Authority the applicant will appoint a suitably qualified person to the satisfaction of the Local Authority, who will undertake an investigation into the incidence of shadow flicker at the compliant location. Where shadow flicker is confirmed to result in loss of amenity, then mitigation measures require to be implemented, to the satisfaction of the Local Authority.

Reason: to prevent nuisance to residents from shadow flicker

3. Construction Noise

a. Prior to the commencement of works on site, the company shall submit to the planning authority a management plan for minimising the emission of dust from the construction and operation of the development hereby authorised. The dust management plan shall specify the following matters and, after its approval shall be implemented in full by the Company:-

- The water spraying of all internal roads and stockpiles of materials to suppress dust in periods of prolonged dry weather;
- The means to ensure that an adequate water supply is available at all times for dust suppression purposes;
- The operation of the site so as to ensure that adequate steps are taken at all times to minimise dust propagation from un-surfaced access tracks within the site.

Reason: To minimise dust to nearby residents.

c. Prior to the commencement of the development the company shall submit to the planning authority an assessment of the effects of the development on the quantity and quality of water supplied to all properties

with private water supplies that may be affected by the development. Thereafter, any mitigation measures as identified in the risk assessment shall be implemented and agreed by the planning authority in order to maintain a secure and adequate quality of water supply to all properties with private water supplies that may be affected by the development.

Reason: In order to maintain a secure and adequate water supply to all properties with private water supplies that may be affected by the development.

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

As the development is in an area of existing low ambient noise levels and the construction activities continue for more than 1 month the following minimum criteria are applicable:-

Assessment category and threshold value period (LAeq) Threshold value in decibels (dB),

Category A

Night time (23.00-07.00) 45

Evenings and Weekends* 55

Daytime (07.00-19.00) and Saturdays (07.00-13.00) 65

*19.00-23.00 weekdays, 13.00-23.00 Saturdays and 07.00-23.00 Sundays. 5228-1 Annex E.

e. Prior to any works being undertaken a detailed method statement for the construction project will require to be undertaken for approval by South Ayrshire Council Planning Department. This shall include an assessment of potentially noisy operations and outline the noise mitigation measures proposed. This will also include a programme and phases for each stage of work.

The site contractors shall conduct all site operations in accordance with accredited documented procedures.

This shall include a site complaint investigation procedure.

f. No Blasting shall take place until a monitoring scheme to address borrow pit blasting has been submitted to South Ayrshire Council and received the written approval of, the planning authority. The scheme shall be implemented as approved in writing by the planning authority. The scheme shall make provision for:

- Blasting monitoring locations (Nearest noise/vibration sensitive properties)
- Type of monitoring equipment to be used;
- Frequency of monitoring.
- The methods to be employed to minimise the effects of overpressure arising from blasting, having regard to blast design, methods of initiation and the weather conditions prevailing at the time;

- Limits of overpressure levels at specified properties; and
- Submission of blasting records to the planning authority.

Reason: To minimise disturbance to residents from noise and vibration.

g. No blasting shall take place except between the following times:-

- 10:00 – 12:00 and 14:00 – 16:00 Mondays to Fridays
- 10:00 – 12:00 Saturdays

Reason: To minimise disturbance to local residents.

h. Ground vibration from the blasting shall not exceed a peak particle velocity of 6mm /second at the blasting monitoring locations identified for condition 6 above. The measurement to be the maximum of three mutually perpendicular directions taken at the ground surface.

Reason: To minimise disturbance to residents in the vicinity of the wind farm.

4. Operational Noise

Operational Noise Levels:

This part of the ES is to be assessed by a 3rd party consultant and their findings suitably implemented (See ACCON comments, above).

Complaint Procedure

a) Within 21 days from receipt of a written request from the Local Planning Authority following a complaint to it from an occupant of a dwelling alleging noise disturbance at that dwelling, the wind farm operator shall, at its expense, employ a consultant approved by the Local Planning Authority to assess the level of noise immissions from the wind farm at the complainant's property in accordance with the procedures described in the attached Guidance Notes. The written request from the Local Planning Authority shall set out at least the date, time and location that the complaint relates to and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the Local Planning Authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.

b) The assessment of the rating level of noise immissions shall be undertaken in accordance with an assessment protocol that shall previously have been submitted to and approved in writing by the Local Planning Authority. The protocol shall include the proposed measurement location identified in accordance with the Guidance Notes where measurements for compliance checking purposes shall be undertaken, whether noise giving rise to the complaint contains or is likely to contain a tonal component, and also the range of meteorological and operational conditions (which shall include the range of wind speeds, wind directions,

power generation and times of day) to determine the assessment of rating level of noise immissions. The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the written request of the Local Planning Authority under paragraph (c), and such others as the independent consultant considers likely to result in a breach of the noise limits.

c) Where a dwelling to which a complaint is related has not previously had noise limits assigned against it, the wind farm operator shall submit to the Local Planning Authority for written approval proposed noise limits selected from another property which has had noise limits assigned to it to be adopted at the complainant's dwelling for compliance checking purposes. The proposed noise limits are to be those limits selected from a listed location which the independent consultant considers as being likely to experience the most similar background noise environment to that experienced at the complainant's dwelling. The rating level of noise immissions resulting from the combined effects of the wind turbines when determined in accordance with the attached Guidance Notes shall not exceed the noise limits approved in writing by the Local Planning Authority for the complainant's dwelling.

d) The wind farm operator shall provide to the Local Planning Authority the independent consultant's assessment of the rating level of noise immissions undertaken in accordance with the Guidance Notes within 2 months of the date of the written request of the Local Planning Authority for compliance measurements to be made under paragraph (c), unless the time limit is extended in writing by the Local Planning Authority. The assessment shall include all data collected for the purposes of undertaking the compliance measurements, such data to be provided in the format set on in Guidance Note 1(e) of the Guidance Notes. The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the Local Planning Authority with the independent consultant's assessment of the rating level of noise immissions.

e) Where a further assessment of the rating level of noise immissions from the wind farm is required pursuant to Guidance Note 4(c), the wind farm operator shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to paragraph (d) above unless the time limit has been extended in writing by the Local Planning Authority.

f) The rating level of noise immissions from the combined effects of the wind turbines (including the application of any tonal penalty) when determined in accordance with the accompanying guidance notes (to

this condition) shall not exceed the values for the relevant integer wind speed set out in, or derived from the table below at any dwelling which is lawfully existing or has planning permission at the date of this permission.

Guidance Notes for Noise Conditions

These notes are to be read with and form part of the noise conditions. They further explain the conditions and specify the methods to be deployed in the assessment of complaints about noise imissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Note 3. Reference to ETSU-R-97 refers to the publication entitled “The Assessment and Rating of Noise from Wind Farms” (1997) published by the Energy Technology Support unit (ETSU) for the Department of Trade and Industry (DTI). Measured noise imission levels from the turbines must be referenced to standardised 10 metres height wind speeds.

Guidance Note 1

(a) Values of the LA90,10-minute noise index should be measured at the complainant’s property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent UK adopted standard in force at the time of the measurements). If required, measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3.

(b) The microphone should be mounted at 1.2 - 1.5 metres above ground level, fitted with a two-layer windshield or suitable equivalent approved in writing by the Local Planning Authority, and placed outside the complainant’s dwelling. Measurements should be made in “free field” conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the wind farm operator shall notify the Local Planning Authority in writing that access has been denied.

(c) The LA90,10-minute measurements should be synchronised with measurements of the 10-minute arithmetic average wind speed, standardised to a height of 10 metres at the wind farm site, and with operational data logged in accordance with Guidance Note 1(d), including the power generation data from the turbine control systems of the wind farm.

(d) To enable compliance with the conditions to be evaluated, the wind farm operator shall continuously log arithmetic mean wind speed in metres per second (m/s), arithmetic mean wind direction in degrees from

north in each successive 10-minute periods from the supervisory control and data acquisition (SCADA) system to enable compliance with the conditions to be evaluated. Wind speed data shall also be standardised to a 10 meters height. It is this standardised 10 metre height wind speed data which is correlated with the noise measurements determined as valid in accordance with Note 2(b), such correlation to be undertaken in the manner described in Note 2(c). In addition, the wind farm operator shall continuously log the arithmetic mean power generated during each successive 10-minutes period for each wind turbine on the wind farm. All 10-minute periods shall commence on the hour and in 10-minute increments thereafter synchronised with Greenwich Mean Time.

(e) Data provided to the Local Planning Authority in accordance with the noise condition shall be provided in comma separated values in electronic format.

Guidance Note 2

(a) The noise measurements should be made so as to provide not less than 20 valid data points as defined in Note 2 paragraph (b).

(b) Valid data points are those measured in the conditions set out in the assessment protocol approved by the Local Planning Authority under Condition 3 of the noise condition but excluding any periods of rainfall measured at the complainants dwelling.

(c) Values of the LA90,10-minute noise measurements and corresponding values of the measured 10-minute standardised 10-metre height wind speed for those data points considered valid in accordance with Note 2 paragraph (b) shall be plotted on an XY chart with noise level on the Y-axis and wind speed on the X-axis. A least squares best fit curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define the wind farm noise level at each integer speed.

Guidance Note 3

(a) Where in accordance with the approved assessment protocol under condition 3, noise imissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.

(b) For each 10-minute interval for which LA90,10-minute data have been determined as valid in accordance with Note 2 a tonal assessment shall be performed on noise imissions during 2 minutes of each 10-minute period. The 2-minute periods should be spaced at 10-minute intervals provided that uninterrupted uncorrupted data are available (“the standard procedure”). Where uncorrupted data are not available, the first available uninterrupted clean 2-minute period out of the affected overall 10-minute period shall be selected.

Any such deviations from standard procedure shall be reported.

(c) For each of the 2-minute samples the tone level above audibility, shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104 -109 of ETSU-R-97 or future equivalent guidance for wind farm tonal noise assessment.

(d) The tonal level above audibility shall be plotted against wind speed for each of the 2-minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be substituted.

(e) A least squares best fit linear regression shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the “best fit” line fitted to values within $\pm 0.5\text{m/s}$ of each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic mean shall be used. This process shall be repeated for each integer wind speed for which there is an assessment of overall levels in Note 2.

(f) The tonal penalty is derived from the margin above audibility of the tone according to the figure below.

Guidance Note 4

(a) If a tonal penalty is to be applied in accordance with Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Note 2 and the penalty for tonal noise as derived in accordance with Note 3 above at each integer wind speed within the range set out in the approved assessment protocol under condition 3.

(b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Note 2.

(c) In the event that the rating level is above the limit(s) set out in the Tables attached to the noise conditions or the noise limits for a complainant’s dwelling approved by the Local Authority, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise emission only.

(d) The wind farm operator shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant or local planning authority requires undertaking the further assessment. The further assessment shall be undertaken in accordance with the following steps:

(e) Repeating the steps in Note 2, with the wind farm switched off, and determining the background noise (L3) at each integer wind speed within the range set out in the approved assessment protocol under Condition 3.

(f) The wind farm noise (L1) at this speed shall then be calculated as follows where L2 is the measured level with turbines running but without the addition of any tonal penalty:

(g) The rating level shall be re-calculated by adding the tonal penalty (if any is applied in accordance with Note 3) to the derived wind farm noise L1 at that integer wind speed.

(h) If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note (iii) above) at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the limits approved by the Local Planning Authority for a complainant's dwelling then no further action is necessary. If the rating level at any integer wind speed exceeds the values set out in the Tables attached to the conditions or the noise limits approved by the Local Planning Authority for a complainant's dwelling then the development fails to comply with the conditions.

South Ayrshire Council Access Officer

It would be helpful for the developer to provide visualisations from various points along the core path/ right of way which crosses the north-east corner of the site and also along sections of the national cycle route NCN7. (I've attached a plan showing the line of the core path/ right of way (SA47/ SKC7) and other routes in the area.)

The South Ayrshire countryside is a region very popular with locals and visitors for walking, cycling and horse riding. The area around Straiton is especially popular, and relies heavily on the income provided by visiting tourists, to support its fragile rural economy. Around the area of the proposed windfarm site there are several core paths and other (undesignated) routes through the forestry plantations, which are used by the public.

The windfarm proposal could have a significant effect on the recreational use of the area (either good or bad, depending on how the proposal may be taken forward).

The Scoping Report should place more emphasis on consideration of this effect on tourism – at the moment (to me anyway) it reads a little dismissive of it.

During the construction phase it's likely that vehicular traffic into/ out of the site will impact on the core path/ right of way route, as it follows along the single-track road past Balbeg and Dalmorton. This would need to be considered to ensure that the route can be kept open and safe for public use.

Improving the surface or signage on sections of the core path SA47/ right of way SKC7 would be an obvious benefit, which the developer should be able to carry out during or just after the construction phase.

South Ayrshire Council Biodiversity Officer

I've now had a chance to read over the ITP Energised EIA Scoping Report and related documents relating to Ornithology and Ecology.

Regarding Ornithology. I'd consider that all the relevant species and methodology have been considered, including identification, characterisation of impacts and suitable mitigation measures. No statutory designated sites are connected to the Proposed Development turbine development area.

NatureScot have "*confirmed that based on the survey findings it is not necessary to undertake a further year of ornithology survey work for the site. However, we advise that a breeding bird protection plan ITP Energised | Knockcronal Wind Farm | 2020-10-30 24 should be prepared, which should include checks for scarce/rare breeding bird species prior to the commencement of any construction works*"

5.9 Scoping questions

Do consultees agree that the range of desk study and ecological surveys proposed is sufficient and proportionate to inform the design and assessment of the Proposed Development? **YES**

Do consultees agree that the full range of likely effects to be assessed within the EIA Report has been adequately identified and is proportionate to the nature of the Proposed Development? **YES**

Are there any other relevant consultees who should be contacted with respect to the ecology assessment and scope of baseline information gathering? **N/A**

Do consultees agree with the assessment and evaluation methodology proposed? **YES**

Regarding Ecology, as with Ornithology I'd consider that all the relevant species and methodology have been considered, including identification, characterisation of impacts and suitable mitigation measures. No

statutory designated sites are connected to the Proposed Development turbine development area.

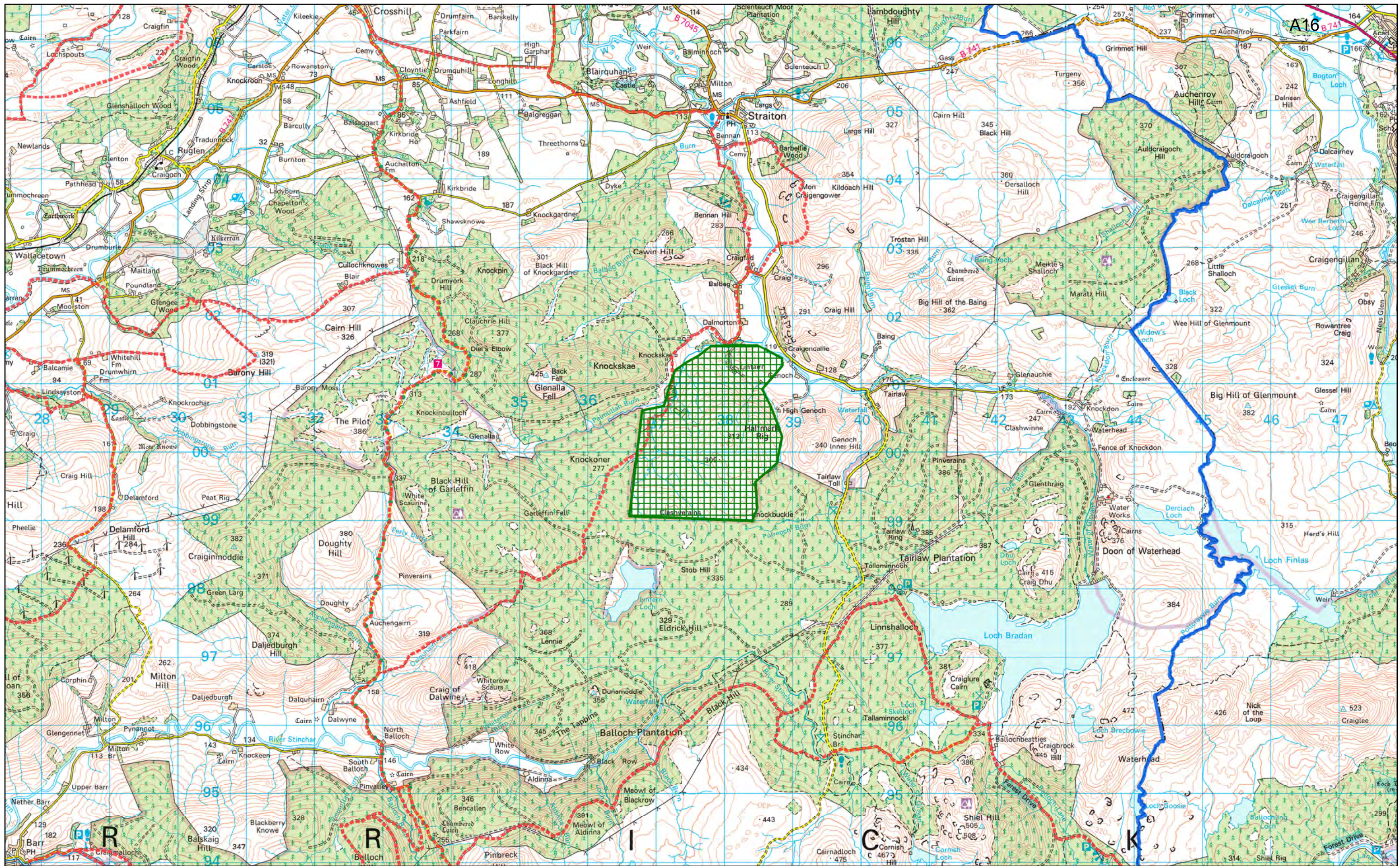
5.9 Scoping questions

Do consultees agree that the range of desk study and ecological surveys proposed is sufficient and proportionate to inform the design and assessment of the Proposed Development? **YES**

Do consultees agree that the full range of likely effects to be assessed within the EIA Report has been adequately identified and is proportionate to the nature of the Proposed Development? **YES**

Are there any other relevant consultees who should be contacted with respect to the ecology assessment and scope of baseline information gathering? **N/A**

Do consultees agree with the assessment and evaluation methodology proposed? **YES**



routes south of Straiton

Scale 1:50000



This product includes mapping data licenced from Ordnance Survey with the permission of the Controller of Her Majesty's Stationary Office. © Crown copyright and/or database right 2021. All rights reserved. Licence number 100020765.



Ayrshire Rivers Trust

working to improve Ayrshire's rivers and lochs

Carolanne Brown
Energy Consents
Scottish Government
4th Floor
5 Atlantic Quay
150 Broomielaw
Glasgow G28LU

8th January 2021

Dear Carolanne,

Re: Knockcronal Wind Farm Scoping Report

On behalf of the Ayrshire Rivers Trust (ART) and the and River Girvan District Salmon Fishery Board we would like to make the following comments on the above Scoping Report. Our comments relate only to the water environment and riparian habitat and take no account of other potential impacts. The proposed wind farm development has the potential to impact on the water environment due to its close proximity to important tributaries of the Water of Girvan, notably the Palmullan and Genoch Burns. We therefore ask you consider the following comments in response to the scoping report.

Do consultees agree that the range of desk study and ecological surveys proposed is sufficient and proportionate to inform the design and assessment of the Proposed Development?

We disagree. We note a fish habitat survey has been complete but not published and will be the basis on which any potential impacts will be assessed against. Fish habitat surveys do not detail what fish species are present or at what density. To fully understand the impacts the development may potentially have on the ecology of the receptor watercourses and present a contemporary reflection of the current species, a fully quantitative electrofishing survey should be undertaken in order to identify in detail, the distribution and abundance of the fish populations. This is the minimum level of detail we consider necessary to provide a robust baseline to inform the EIA. ART would welcome the opportunity to provide comments on proposed baseline survey methodology and survey site locations.

As the Freshwater Pearl Mussel (FWPM) surveys have not been published, we cannot comment on this but surveys should be undertaken to inform the baseline particularly downstream of the receptor burns, which drain the site, and the confluence of the River Girvan. Freshwater Pearl Mussels assessment should be considered as an integral component of any pre development and ongoing monitoring as they are present within the catchment.

ART and the River Girvan District Salmon Fishery Board would like to be consulted on issues that concern watercourses such as on water crossings, electrofishing monitoring and potential opportunities for ecological enhancement.

We also note Section 6.2.18 states:

Additional Field Surveys

6.2.18 In accordance with NatureScot guidance (2020) there are some species groups which, providing the implementation of suitable mitigation measures, are unlikely to be subject to significant effects as a result of wind farm developments. As such, they do not require surveys to inform an EIA. This includes invertebrates, reptiles and amphibians.

Macroinvertebrate surveys should be undertaken within the receptor watercourses to inform the baseline prior to construction. These macro invertebrates include critically endangered species listed on the IUCN red list of species such as FWPM which are highly vulnerable to failures in water chemistry and quality. Others act as long term indicators of water quality and are therefore important.

Other mammalian riparian species of conservation importance are known to be found in or nearby the development area to be present including Otters (*Lutra lutra*) and Water Voles (*Arvicola amphibius*).

In summary, up-to-date baseline surveys should be completed for fish, macroinvertebrates, FWPM, water voles and otters at very least.

Do consultees agree that the full range of likely effects to be assessed within the EIAR has been adequately identified and is proportionate to the nature of the Proposed Development?

We disagree and make the following points. The construction and operation of the proposed Knockcronal Wind Farm should it progress has the potential to affect instream and marginal riparian habitat, fish populations, riparian ecology and fisheries within the River Girvan catchment. We therefore request the Environmental Impact Assessment should assess the following potential effects on watercourses from the initial site preparation stages, through construction and operational activities of the windfarm:

1. Forest Felling and subsequent effects of this activity e.g. acidification of watercourses, rates of surface drainage run-off, sediment-laden surface drainage water, sediment mobilisation and deposition, input of hydrocarbons and organic matter etc.
2. Construction activities – impediment to fish movement. Construction activities should not impede movement of any migratory or resident fish populations. New water crossings (temporary or permanent) should only be installed using SEPA design and best practice guidelines. The River Girvan DSFB and Ayrshire Rivers Trust should be consulted beforehand to assist with the design and necessary mitigation measures. There is an opportunity for the development to have a positive impact on the water environment by upgrading old crossings within the development that may prevent or hinder fish migration.
3. Construction/operation activities - increased silt loading to watercourses. Potential impacts may arise from soil stripping, track construction and vehicle/plant movements, dewatering on receptor watercourses and abstraction of water from watercourses. Sediment loading and water borne sediment transport off site may increase, potentially reducing water quality. Altered flow regimes within the watercourses crossing or fed from the development area may lead to unknown impacts on many species. These points must be adequately considered.
4. The CEMP should include provision for continuous monitoring of fish and macroinvertebrates and water quality parameters.

Are there any other relevant consultees who should be contacted with respect to the ecology assessment and scope of baseline information gathering?

Ayrshire Rivers Trust and River Girvan District Salmon Fishery Board

Do consultees agree with the assessment and evaluation methodology proposed?

Yes

We hope these comments are helpful. Should you require further information or clarification of any points, please don't hesitate to contact the undersigned in the first instance.

Yours sincerely
REDACTED

Gillian McIntyre
Biologist and Project Manager

Patron Her Majesty The Queen

Helene Mauchlen (Scotland)

Email Helene.Mauchlen@bhs.org.uk

Woodburn Farm

Website www.bhsscotland.org.uk

Crieff

Tel REDACTE

Perthshire

Mo REDACT

Fulfilling your passion for horses

PH7 3RG

ED



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

By email to:

Econsents_admin@gov.scot

Carolanne.Brown@gov.scot

25 January 2021

Dear Sir/Madam

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

**REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR
 KNOCKCRONAL WIND FARM**

I refer to the above scoping opinion request for the proposed Knockcronal Wind Farm proposal in the planning authority area of South Ayrshire Council.

The British Horse Society (BHS) is always pleased to be consulted on transport, planning and development matters and where possible or necessary we are able to engage local riders to get a locally based response. Thank you very much for consulting with us, horses are important and good for people so their safety and capacity to access safe off road hacking is a key consideration in terms of their welfare and the wellbeing of their riders and those who look after them.

A project, like the one you are carrying out is an excellent opportunity to improve connections in a community and hopefully resolve any problems in terms of countryside access, transport and travel.

The BHS is here to help, so please do not consider this response the final word, we hope to work with you on an on-going basis to ensure horses and horse riders get as good a deal as they can out of any proposed improvements, so please do not hesitate to contact us in the future.

The British Horse Society Abbey Park, Stareton, Kenilworth, Warwickshire CV8 2XZ

The British Horse Society is an Appointed Representative of South Essex Insurance Brokers Limited who are authorised and regulated by the Financial Conduct Authority.

Registered Charity Nos. 210504 and SC038516. A company limited by guarantee. Registered in England & Wales No. 444742

Patron Her Majesty The Queen

Helene Mauchlen (Scotland)

Email Helene.Mauchlen@bhs.org.uk

Woodburn Farm

Website www.bhsscotland.org.uk

Crieff

Tel REDACTE

Perthshire

Mo REDACT

Fulfilling your passion for horses

PH7 3RG

ED



The Importance of Off-Road Riding

Scotland's equestrian industry is important with the horse being a major rural economic driver, recent joint research between SRUC and BHS showed:

Current trends in the sector point to a continued increase in horse numbers and riding activity in all geographical areas of Scotland and across a wide cross section of society. The expenditure on direct upkeep averages £3,105 per horse per annum.

This report also showed:

A concern for all riders, including tourists, is diminishing access to safe off-road riding. Most riding accidents happen on minor roads in the countryside. With increasing numbers of horses and riders requiring access to the countryside, more formal access to off-road riding will be a priority in areas considered of higher risk.

The full report can be accessed at:

http://www.sruc.ac.uk/downloads/file/2391/2015_scoping_study_on_the_equine_industry_in_scotland

Scotland has a duty to get horse riders off busy roads; few riders access busy roads by choice (and the horse has as much right to be on the public highway as cars, bikes and pedestrians) - but they often have no choice as that is the only way they can access their safe off road hacking.

I can also refer you to:

<http://www.rosipa.com/road-safety/advice/horse-riders>

Equestrian road users are vulnerable - that means they are more likely to be involved in a road accident and also more likely to suffer the worst consequences.

Horses and their riders (as well as carriage drivers) are vulnerable on the road network. A collision between a horse and a vehicle can have life threatening consequences for the horse, rider and those in a vehicle. There is evidence to suggest that the number of road traffic collisions involving horses is underreported in casualty data.

Horse riding is more prevalent (particularly on roads) in certain parts of the country. Rural areas have larger numbers of horse riders, who make a significant contribution to the rural economy. Yet according to Road Safety Scotland 70% of road accidents happen on country roads.

<http://donriskit.info/country-roads/view-the-campaign>

The British Horse Society Abbey Park, Stareton, Kenilworth, Warwickshire CV8 2XZ

The British Horse Society is an Appointed Representative of South Essex Insurance Brokers Limited who are authorised and regulated by the Financial Conduct Authority.

Registered Charity Nos. 210504 and SC038516. A company limited by guarantee. Registered in England & Wales No. 444742

Patron Her Majesty The Queen

Helene Mauchlen (Scotland)

Email Helene.Mauchlen@bhs.org.uk

Woodburn Farm

Website www.bhsscotland.org.uk

Crieff

Tel REDACTE

Perthshire

Mo REDACT

Fulfilling your passion for horses

PH7 3RG

ED



The BHS expects developers to work with representatives of the local horse riding community to understand their road safety and countryside access concerns and facilitate engagement with other partners and consider whether any road safety interventions should be introduced, where there are significant numbers of horse riders and/or road traffic collisions involving horses.

Under the Land Reform (Scotland) Act 2003, horse-riders and carriage drivers enjoy a right of access to most land in Scotland, provided that they behave responsibly. Land managers in turn are obliged to respect equestrian access rights and take proper account of the right of responsible access in managing their land. The Scottish Outdoor Access Code gives guidance on how the requirements to behave responsibly can be met. Please refer to:

www.outdooraccess-scotland.com

This access legislation, which is over a decade old now gives horse riders the same rights of responsible access as walkers and cyclists. It is vital that any off road tracks or non-motorised user's tracks or paths are multi-use catering for all including horse riders and carriage drivers.

Active Travel and Suitable infrastructure

Whilst the active travel movement does not consider equestrian travel to be a form of active travel there are many people for whom riding is an attractive mode of travel whether that be for travel purposes or leisure purposes, and the delivery of Active Travel should not discourage this, just as it should not discourage the use of micro-scooters, roller blades, skateboards and other similar modes of travel. In urban areas, many riding horses are kept within the 10 mile journey distance and they must not be disadvantaged by new facilities that may be put in place for the cyclists. Level crossings which are currently used by equestrians should not be replaced by alternatives which would preclude the use by equestrians, for example, a footbridge. Similarly, other infrastructure like gates, bridges, cattle grids and slippery surfaces should all be installed with equestrians in mind. Access control must always be the least restrictive option.

The British Horse Society (BHS) represents the interests of the 3.4 million people in the UK who ride or who drive horse-drawn vehicles. With the membership of its Affiliated Riding Clubs and Bridleway Groups, the BHS is the largest and most influential equestrian charity in the UK. The BHS is committed to promoting the interests of all equestrians and the welfare of horses and ponies through education and training.

Please see attached an information sheet on equestrian access.

<https://www.pathsforall.org.uk/resource/outdoor-access-design-guide>

With over 70k equines in Scotland, equestrianism is worth £650 million to the Scottish economy annually with the Scottish Racing industry contributing £300 million and the rest of the industry generating £355 million according to recent research (Developing Benchmarks & Trends to

The British Horse Society Abbey Park, Stareton, Kenilworth, Warwickshire CV8 2XZ

The British Horse Society is an Appointed Representative of South Essex Insurance Brokers Limited who are authorised and regulated by the Financial Conduct Authority.

Registered Charity Nos. 210504 and SC038516. A company limited by guarantee. Registered in England & Wales No. 444742

Patron Her Majesty The Queen

Helene Mauchlen (Scotland)

Email Helene.Mauchlen@bhs.org.uk

Woodburn Farm

Website www.bhsscotland.org.uk

Crieff

Tel REDACTED

Perthshire

Mo REDACTED

Fulfilling your passion for horses

PH7 3RG

ED

The
British
Horse
Society
Scotland

Measure Equestrian Activity in Scotland - A report produced by the British Equestrian Trade Association August 2019 And Scottish Racing Annual Review and 2019 Outlook)

I trust that the above information is of assistance.

REDACTED

**HELENE MAUCHLEN
SCOTTISH NATIONAL MANAGER
THE BRITISH HORSE SOCIETY**

Dead? Or Dead Slow?

As these shocking statistics show, riders face a very real threat when they are riding on the road. The largest equestrian charity in the UK, The British Horse Society, has been using its Dead Slow campaign to educate drivers on how to safely pass horses on the road...

The
British
Horse
Society

We've had

1,037*

reported to us

In total...

80

Horses have died



1

Person was killed



135 have been injured because of road incidents

When you see a horse on the road...

- 1** Slow down to 15 mph
- 2** Be patient, don't sound your horn or rev your engine
- 3** Pass wide (2m, at least a car's width)
- 4** Drive slowly away

↑ 23%
increase

compared to 2018-2019 (845 in 2018-2019)

40%

of incidents occurred because a vehicle passed by too quickly

81%

of incidents occurred because cars passed too closely to horses

43%

of riders reported road rage or abuse

*All statistics are from 28.02.2019 - 29.02.2020

The British Horse Society is a Registered Charity Nos. 210504 and SC038516.

To find out more visit **bhs.org.uk/deadslow**

The British Horse Society Abbey Park, Stareton, Kenilworth, Warwickshire CV8 2XZ

The British Horse Society is an Appointed Representative of South Essex Insurance Brokers Limited who are authorised and regulated by the Financial Conduct Authority.

Registered Charity Nos. 210504 and SC038516. A company limited by guarantee. Registered in England & Wales No. 444742

Melrose J (Joyce)

From: lisa.4.smith@bt.com on behalf of radionetworkprotection@bt.com
Sent: 22 January 2021 09:31
To: Econsents Admin
Cc: radionetworkprotection@bt.com; Brown C (Carolanne)
Subject: FW: Scoping Opinion Knockcronal Wind Farm - WID11418
Attachments: Knockcronal Wind Farm - Scoping Report.pdf; Knockcronal Wind Farm - Site Location Plan.pdf



OUR REF: WID11418

Dear Sir/Madam

Thank you for your email dated 14/01/2021.

We have studied the Wind Farm proposal with respect to EMC and related problems to BT point-to-point microwave radio links.

The conclusion is that, the Turbine locations indicated in 'Table 2-1 Turbine Coordinates' should not cause interference to BT's current and presently planned radio network.

Please direct all queries to radionetworkprotection@bt.com

Regards

Lisa Smith

Engineering Services Radio Planning



This email contains information from BT that might be privileged or confidential. And it's only meant for the person above. If that's not you, we're sorry - we must have sent it to you by mistake. Please email us to let us know, and don't copy or forward it to anyone else. Thanks.
We monitor our email systems and may record all our emails.
British Telecommunications plc
R/O : 81 Newgate Street, London EC1A 7AJ



Teena Oulaghan
Safeguarding Manager
Ministry of Defence
Safeguarding
Kingston Road
Sutton Coldfield
West Midlands B75 7RL
United Kingdom

Carolanne Brown
Energy Consents Unit,
Scottish Government,
4th Floor,
5 Atlantic Quay,
150 Broomielaw,
Glasgow
G2 8LU

MOD Telephone: REDACTED
E-mail: teena.oulaghan100@mod.gov.uk

Application Ref: ECU00002181

Our Reference: DIO10050280

22 January 2021

Dear Carolanne,

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

REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR KNOCKCRONAL
WIND FARM

Site Address: 2 km south of Straiton, 11 km south-west of Dalmellington and 17.5 km east of Girvan

Thank you for consulting the Ministry of Defence (MOD) on the above request for a Scoping Opinion for the proposed construction and operation of a wind farm that was received by our office on 14 January 2021.

I am writing to inform you that the MOD has no concerns about this proposed development.

We have assessed this proposal on the basis that there will be 12 turbines at 200.00 metres in height from ground level to blade tip and located at the grid references detailed in the table below:

Turbine	Easting	Northing
1	237,697	600,056
2	238,036	600,352
3	238,401	600,064
4	237,281	600,177
5	237,477	599,608
6	237,898	599,581
7	238,322	599,632
8	237,091	599,785
9	237,807	599,159
10	238,264	599,176
11	236,821	599,335

12	237,238	599,204
----	---------	---------

The development site occupies Tactical Training Area 20T (TTA 20T) therefore in the interests of air safety, the MOD would request that the development be fitted with MOD accredited aviation safety lighting in accordance with the Civil Aviation Authority, Air Navigation Order 2016.

MOD Safeguarding wishes to be consulted and notified about the progression of this proposal and any subsequent application(s) that may be submitted relating to it to verify that it will not adversely affect defence interests.

I trust this adequately explains our position on this matter. Further information about the effects of wind turbines on MOD interests can be obtained from the following website:

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

Yours sincerely

REDACTED

Teena Oulaghan
Safeguarding Manager

Brown C (Carolanne)

From: Brian Davidson <brian@fms.scot>
Sent: 03 February 2021 08:11
To: Brown C (Carolanne)
Cc: Stuart Brabbs (stuart@ayrshirerivertrust.org); Austin Thomson
Subject: RE: Scoping Opinion Knockcronal Wind Farm

Dear Carolanne,

Thank you for your correspondence concerning the proposed wind farm at Knockcronal.

Fisheries Management Scotland (FMS) represents the network of 41 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 catchment relating to the Girvan DSFB and Ayrshire Fisheries Trust. It is important that the proposals are conducted in full consultation with both organisations (see link to FMS member DSFBs and Trusts below). We have also copied this response to Austin Thomson at the DSFB and Stuart Brabbs at the Trust.

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 DSFB CONTACT DETAILS](#)
- [LINK TO FISHERY TRUST CONTACT DETAILS](#)

regards,

RED
ACT
ED
Brian Davidson | Dir Communications & Administration
Fisheries Management Scotland
11 Rutland Square, Edinburgh, EH1 2AS
Tel: REDACTED | REDACTED
www.fms.scot

Brown C (Carolanne)

From: Ed Forrest <ed@gsabiosphere.org.uk>
Sent: 03 February 2021 10:18
To: Brown C (Carolanne)
Subject: Re: FW: Scoping Opinion Knockcronal Wind Farm

Good Morning Carolanne

the Biosphere Partnership have an agreed position statement regarding windfarm development of only commenting on developments taking place within the core or the buffer of the Biosphere area. As the Knockcronal development is located just outside of our buffer in the transition area we will not be submitting a GSAB response.

Kind Regards

Ed Forrest

Brown C (Carolanne)

From: Jamie Ribbens <jamie@gallowayfisheriestrust.org>
Sent: 14 January 2021 15:18
To: Brown C (Carolanne)
Subject: RE: Scoping Opinion Knockcronal Wind Farm

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Carolanne

Thank you for the email regarding this consultation. This development lies all within the River Girvan catchment which GFT do not work within, so we will not submit a response to this consultation.

Regards
Jamie

Jamie Ribbens BSc (Hons) MSc
Senior Fisheries Biologist

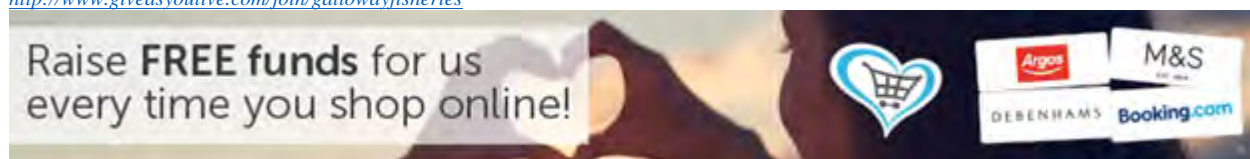
Galloway Fisheries Trust, Fisheries House, Station Industrial Estate, Newton Stewart, Wigtownshire, DG8 6ND
Tel: 01671 403011
A Scottish Registered Charity (No. SC 020751)

E: jamie@gallowayfisheriestrust.org W: www.gallowayfisheriestrust.org



This email is communicated in confidence. It is intended for the recipient only and may not be disclosed further without the express consent of the sender. The views of the sender do not necessarily reflect those of Galloway Fisheries Trust.

<http://www.giveasyoulive.com/join/gallowayfisheries>



Melrose J (Joyce)

From: Steve Thomson <sthomson@glasgowprestwick.com>
Sent: 11 February 2021 20:34
To: Brown C (Carolanne); Econsents Admin
Cc: Windfarm; Safeguarding
Subject: Scoping Opinion Knockcronal Wind Farm - formal response from Glasgow Prestwick Airport - 11th Feb 2021

Carolanne

Thank you for the additional period to respond to this scoping opinion.

1. On behalf of Glasgow Prestwick Airport (GPA) Ltd – I have reviewed the Scoping Report (and associated documents) available on the Energy Consents Unit portal for Knockcronal Wind Farm (**ECU00002181**).
2. The proposed scope of the Environmental Impact Assessment (EIA) seems appropriate – and we are pleased that the Developer intends to engage with GPA in respect of aviation safety matters in respect of radar display clutter likely from turbines visible to the GPA primary radars – and we welcome early engagement with GPA in respect of these aviation matters.
3. Preliminary Line of Sight (LOS) analysis at proposed 200m tip height of Knockcronal Windfarm – indicates all turbines will be visible to GPA’s primary radars - and it is likely that further detailed radar modelling assessments/flight trials would be necessary to confirm the exact number of turbines visible to GPA radar – and whether their impact can be mitigated for the lifetime of the windfarm.

We would be happy to discuss this further with the Developer as and when they formally engage with GPA on this proposed development.

4. Furthermore GPA will also require an assessment to be undertaken for this proposed windfarm against our published Instrument Flight Procedures (IFP’s) (both conventional and RNAV/RNP) – to satisfy ourselves that the turbine tip heights have no impact on our existing published IFP’s.
5. GPA would be minded to **object** to this development on aviation safety grounds as detailed above - and respectfully request that we are consulted with - should this proposed development be submitted as a formal Section 36 Planning application.
6. As above GPA request early engagement with the Developer in efforts to resolve the aviation safety matters detailed above.

With Kind Regards

Steve Thomson



By email to: econsents_admin@gov.scot

Ms Carolanne Brown
Energy Consents Unit
4th Floor, 5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Enquiry Line: 0131-668-8716
HMConsultations@hes.scot

Our case ID: 300048389
Your ref: EC00002181

12 February 2021

Dear Carolanne Brown

[The Electricity Works \(Environmental Impact Assessment\) \(Scotland\) Regulations 2017
Knockcronal Wind Farm, South Ayrshire
Scoping Report](#)

Thank you for your consultation which we received on 14 January 2021 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 South Ayrshire Council's 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.

Proposed Development

I understand that the proposed development comprises 12 wind turbines of up to 200m blade tip height, as well as associated on-site energy storage system and infrastructure. The turbines are to be located on land south of Straiton, south-west of Dalmellington and east of Girvan.

Scope of assessment

Potential direct impacts

We can confirm that there are no scheduled monuments, category A listed buildings, Inventory battlefields, gardens and designed landscapes or World Heritage Sites within the proposed development boundary.

Potential impacts on the setting of assets

There are a number of nationally important historic environment assets in the vicinity of the proposed development whose settings have the potential to be significantly impacted by it.

The annex to this letter gives further details on these assets. This list should not be treated as exhaustive and is only intended as a reference to those assets which at this stage appear most likely to be significantly impacted.

Potential cumulative impacts

There are a number of other existing and proposed wind farms in the surrounding area. We would recommend that the potential cumulative impacts of the proposed development in combination with other developments in the vicinity be assessed. This should assess the incremental impact or change when the proposed development is combined with other present and reasonably foreseeable developments.

Scoping report

We welcome that cultural heritage effects are scoped into the assessment. We welcome that the operational effects of the proposal on the setting of cultural heritage assets as well as direct impacts from construction will be assessed; we have provided further comments in the attached annex. We recommend that our Managing Change Guidance Note on Setting is used to inform setting assessments and further information on good practice in cultural heritage assessment can be found in Appendix 1 of the EIA Handbook.

Further information

The Historic Environment Policy for Scotland (HEPS 2019) was adopted on the 01 May 2019 and replaced the Historic Environment Scotland Policy Statement (HESPS 2016). The new Historic Environment Policy for Scotland is a strategic policy document for the whole of the historic environment and is underpinned by detailed policy and guidance. This includes our Managing Change in the Historic Environment Guidance Notes. All of these documents are available online at www.historicenvironment.scot/heps.

Practical guidance and information about the EIA process can also be found in the EIA Handbook (2018). Technical advice is available on our Technical Conservation website at <http://conservation.historic-scotland.gov.uk/>.

We hope this is helpful. Please contact us if you have any questions about this response. The officer managing this case is Urszula Szupczynska and they can be contacted by phone on REDACTED or by email on Urszula.Szupczynska@hes.scot.

Yours sincerely

Historic Environment Scotland

Annex

Historic Environment Scotland's interest

The following designated historic environment assets are in the vicinity of the development and have the potential to be impacted by it. This list is not considered to be exhaustive, and we would recommend that a wider search is undertaken of the surrounding area for potential impacts in the first instance. It is important to note that some assets have settings that are particularly sensitive to impacts and this should be used to help determine which sites are assessed in more detail in the EIA Report.

We recommend that an appropriately detailed ZTV should be used to identify potential setting impacts in the first instance and that consideration should be given to including assets where even though the ZTV indicates that no direct intervisibility would be possible there is the potential for turbines to appear in the background of key views towards these assets.

We recommend the scoping exercise should specifically focus on the following heritage assets:

Scheduled monuments

- Knockinculloch, Enclosures on E Slope of, 600m NW of Glenalla (Index no. 3357)

The proposed turbines are to be located approximately 3km to the east of this monument.

We welcome that visualisations will be provided to allow for an accurate assessment of the scale of visual intrusion that the wind farm might have on this monument.

Category A listed buildings and Inventory Gardens and Designed Landscapes

- Category A Listed Blairquhan House (HB Num 19094) and its associated Inventory historic garden and designed landscape
- Category A Listed Kilkerran House (HB Num 1114) and its associated Inventory historic garden and designed landscape
- Category A Listed Craigenjillan (HB Num 18793) and its associated Inventory historic garden and designed landscape

Blairquhan

A number of turbines may be visible from the Blairquhan designed landscape and our view is that there is potential for significant impact on this GDL and the setting of the house. A detailed assessment of these potential impacts is required.

The proposed photomontage is to be taken from just south of Cloncaird castle. While it may be useful in assessing views across the designed landscape, this viewpoint may not fully illustrate the impact of the development on the designed landscape. According to the Inventory, the best views of the house and park are obtained from the north, and the wind farm may be visible in these views as it is located in close proximity to the south of the designed landscape. The 3-mile long north drive is an important feature of the design and follows the route of the river Girvan, with its dramatic gorge and waterfalls. After 2 miles as the drive continues southwards towards the castle, the view opens out to reveal the castle with the hills behind with the memorial obelisk in memory of Colonel James Hunter Blair MP set on the summit of Craigengower (Highgate Hill) to the SE. As the wind farm may be visible in this important view of the Castle and its designed landscape, we would therefore recommend that a photomontage showing this view is also produced.

Kilkerran

The policies are located on the southern edge of the Water of Girvan valley, with the moorland hills rising to 1000 feet to the south and forming an important backdrop to the designed landscape. According to the Inventory, there are extensive views from the valley across the open parkland towards the house with the hills behind, especially from the B741. The wind farm may therefore be visible in this important view. We would therefore recommend that a photomontage showing the view of the house in its designed landscape setting from this road is produced.

It would be helpful if the visualisations are sent to us prior to submission of a full application and the EIA Report.

In addition, we note that the applicant is seeking advice on the following issues that are relevant to our historic environment interests (Chapter 9, Section 9.9):

- **Do you agree that the proposed study areas are appropriate to the nature and scale of the Proposed Development?**

A 10km study area is proposed to identify nationally important assets which may potentially receive impacts to their settings. We do not generally recommend the use of a specific radius to identify assets for inclusion or exclusion in assessments as there is the potential for assets to be missed. In this instance, we consider that the 10km study area is acceptable based on the current layout, however, if the layout is altered this radius should be reconsidered in line with new ZTVs and assets outwith this radius assessed for any potential impacts to their settings.

- **If not, can you advise what you would consider to be appropriate in the specific circumstances, providing reasoning?**

N/A



- **Are there any specific designated heritage assets that you consider have settings that are especially sensitive to change relative to the nature and scale of the Proposed Development that require to be addressed through detailed assessment?**

These heritage assets are mentioned above.

- **Do you agree with the proposed scope of the assessment: assets to be included/excluded from assessment?**

There are good views to the front of the Category A listed Kilkerran house across the parkland from the B741 and it would be helpful to understand the impact that the turbines would have on these views. It appears that there may be turbines on the horizon behind the house. A photomontage of this view would help to assess this.

- **Do you agree with the potential impacts identified, or do you have any additional potential impacts that should also be considered?**

As above, we consider that impacts on Kilkerran House GDL should also be considered.

- **Do you agree with the proposed embedded mitigation and do you have any additional mitigation requirements not included in the proposals?**

We note that the proposed mitigation focusses only on direct impacts. We would strongly advise that mitigation measures should also be proposed for any adverse setting effects that are identified. We recommend that in line with the mitigation hierarchy any significant adverse effects on assets designated as nationally important are avoided by redesign of the development.

If adverse effects are identified we would welcome further consultation as the design of the project progresses so that we can provide advice regarding impacts on the setting of assets and any requirement for mitigation at a useful and constructive stage in the project design process.

- **Do you agree with the proposed visualisation viewpoints or do you have any alternative/additional requirements?**

We request that the following visualisations are produced to assist in our consideration of this proposal:

- a photomontage showing the view of Kilkerran House (HB Num 1114) in its designed landscape setting from the B741
- a photomontage of Blairquhan House (HB Num 19094) with the hills behind with the memorial obelisk in memory of Colonel James Hunter Blair MP set on the



summit of Craigengower (Highgate Hill) to the south east, taken from the final mile of the approach from the north.

- a photomontage demonstrating the impacts on Craigengillan House in its designed landscape

Historic Environment Scotland

12 February 2021

Brown C (Carolanne)

From: Rosie Simpson <rosie.simpson@johnmuirtrust.org>
Sent: 04 February 2021 12:54
To: Brown C (Carolanne)
Subject: RE: Scoping Opinion Knockcronal Wind Farm

Dear Carolanne,

Thank you for this opportunity to comment at scoping stage.

We have noted that a Wild Land Impact Assessment will be undertaken for this development. We would recommend that NatureScot's guidance in Annex 2 of 'General pre-application and scoping advice for onshore wind farms' is used to inform the landscape and visual impact assessment given that aviation lighting may be required and this wind farm is close to Merrick Wild Land Area and the Galloway Dark Sky Park.

Yours sincerely,
Rosie Simpson

Brown C (Carolanne)

From: JRC Windfarm Coordinations <windfarms@jrc.co.uk>
Sent: 15 January 2021 10:36
To: Brown C (Carolanne)
Subject: Scoping Opinion Knockcronal Wind Farm [WF134268]

Dear carolanne,

A Windfarms Team member has replied to your co-ordination request, reference **WF134268** with the following response:

Dear Planning

Name/Location: Krockcronal Wind Farm

Site Centre/Turbine at NGR/IGR:

T01 237697 600056
T02 238036 600352
T03 238401 600064
T04 237281 600177
T05 237477 599608
T06 237898 599581
T07 238322 599632
T08 237091 599785
T09 237807 599159
T10 238264 599176
T11 236821 599335
T12 237238 599204

Development Radius: 0.1KM

Tip Height: 200m

*This proposal **cleared** with respect to radio link infrastructure operated by:*

Scottish Power and Scotia Gas 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

<http://www.jrc.co.uk/about-us>

JRC is working towards GDPR compliance. We maintain your personal contact details in accordance with GDPR requirements for the purpose of "Legitimate Interest" for communication with you. However you have the right to be removed from our contact database. 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?auth=o1x2idqaagdkyaaaCD0KgRUTxxyq4g%3D%3D>

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit <http://www.symanteccloud.com>

Melrose J (Joyce)

From: NATS Safeguarding <NATSSafeguarding@nats.co.uk>
Sent: 28 January 2021 15:50
To: Brown C (Carolanne)
Cc: Econsents Admin
Subject: RE: Scoping Opinion Knockcronal Wind Farm [SG30928]

Our Ref: SG30928

Dear Carolanne

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 Safeguarding

E: natssafeguarding@nats.co.uk

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

Brown C (Carolanne)

From: Melrose J (Joyce)
Sent: 01 February 2021 09:00
To: Brown C (Carolanne)
Subject: FW: Scoping Opinion Knockcronal Wind Farm [SG30928]

From: NATS Safeguarding <NATSSafeguarding@nats.co.uk>
Sent: 28 January 2021 15:50
To: Brown C (Carolanne) <Carolanne.Brown@gov.scot>
Cc: Econsents Admin <Econsents_Admin@gov.scot>
Subject: RE: Scoping Opinion Knockcronal Wind Farm [SG30928]

Our Ref: SG30928

Dear Carolanne

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 Safeguarding

E: natssafeguarding@nats.co.uk

Prepared by:
NATS Safeguarding Office
Unmarked



Technical and Operational Assessment (TOPA)

For Knockcronal
Wind Farm Development

NATS ref: SG30928

Scottish Government ref: ECU00002181

Issue 1

Contents

1.	Background	4
1.1.	En-route Consultation	4
2.	Scope	4
3.	Application Details	5
4.	Assessments Required	5
4.1.	En-route RADAR Technical Assessment	6
4.1.1.	Predicted Impact on Lowther RADAR	6
4.1.2.	En-route operational assessment of RADAR impact	6
4.2.	En-route Navigational Aid Assessment	6
4.2.1.	Predicted Impact on Navigation Aids	6
4.3.	En-route Radio Communication Assessment	6
4.3.1.	Predicted Impact on the Radio Communications Infrastructure	6
5.	Conclusions	6
5.1.	En-route Consultation	6

Notice

The circulation of NATS Protectively Marked information outside NATS is restricted. Please do not redistribute this information without first obtaining NATS' permission. Every effort should be made to prevent any unauthorised access to this information and to dispose of it securely when no longer required.

NATS is not a public body and therefore has no duty under FOIA and EIR to release information. NATS does however appreciate that other organisations that receive NATS information could be subject to FOIA and EIR. With this in mind please do not release any NATS protectively marked information without prior consent from the author of the information and exemptions could apply.

Publication History

Issue	Month/Year	Change Requests and summary
1	January 2021	Scoping Opinion

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 Knockcronal 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	Tip Height (m)
1	55.2679	-4.5560	237697	600056	200
2	55.2706	-4.5509	238036	600352	200
3	55.2682	-4.5450	238401	600064	200
4	55.2688	-4.5627	237281	600177	200
5	55.2638	-4.5592	237477	599608	200
6	55.2637	-4.5526	237898	599581	200
7	55.2643	-4.5460	238322	599632	200
8	55.2652	-4.5654	237091	599785	200
9	55.2598	-4.5538	237807	599159	200
10	55.2601	-4.5466	238264	599176	200
11	55.2611	-4.5694	236821	599335	200
12	55.2601	-4.5628	237238	599204	200

Table 1 – Turbine Details

4. Assessments Required

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

RADAR	Lat	Long	nm	km	Az (deg)	Type
GDF Radar	54.6841	-2.4509	80.3	148.7	296.5	CMB
Lowther Hill Radar	55.3778	-3.7530	27.9	51.7	256.4	CMB
Perwinnes Radar	57.2123	-2.1309	142.1	263.1	215.7	CMB
Tiree Radar	56.4556	-6.9230	107.0	198.2	130.8	CMB
En-route Nav	Lat	Long	nm	km	Az (deg)	Type
None						
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 ATC	Unacceptable

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

No impact is anticipated on NATS' navigation aids.

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_r 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 be 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.

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

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.



Carolanne Brown
Case Officer
Energy Consents Unit
The Scottish Government
Econsents_Admin@gov.scot

17 February 2021

Our ref: CNS/REN/WF/SA/KNOCK
CDM161788

Dear Carolanne,

**Electricity Act 1989
The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
Request for Scoping Opinion for Proposed Section 36 Application for Knockcronal Wind Farm
(ref EC00002181)**

Thank you for your consultation dated 14 January 2021 on the scope of the Environmental Impact Assessment (EIA) for the proposed Knockcronal Wind Farm, South Ayrshire. The Consultation is supported by the Knockcronal Wind Farm EIA Scoping Report (Statkraft and ITP Energised October 2020)

1. Background

1.1 The proposed development is for a wind farm of 12 turbines with a maximum tip height of 200 metres, and ancillary infrastructure, located approximately 4.2 km south of Straiton, 11 km south-west of Dalmellington and 17.5 km east of Girvan in the planning authority area of South Ayrshire Council. Prior to this proposed development, the Linfairn Farm Wind Farm was proposed on a site covering a larger area than the current development footprint, but was ultimately withdrawn.

1.2 We have previously provided the Applicant's consultants with advice on the ornithology and ecological aspects of the project in a letter dated 30 May 2019 and email dated 01 May 2020.

2. General scoping advice

2.1 We refer the Applicant to our general pre-application/scoping advice for developers of onshore wind farms¹. This provides guidance on the issues that developers and their consultants

¹ <https://www.nature.scot/professional-advice/planning-and-development/renewable-energy-development/types-renewable-technologies/onshore-wind-energy/general-advice-wind-farm>

should consider for wind energy 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 advice included in the guidance. The checklist in Annex 1 of our guidance sets out our expectations of what should be included in the ES, while Annex 2 provides guidance on undertaking lighting assessments.

2.2 The guidance document will be updated over time to reflect any changes to available information and our guidance, so users should ensure they download the most up to date version before use.

2.3 The Applicant should also refer to our guidance on onshore wind farm development² and ensure relevant guidance is fully considered when undertaking the EIA Report. All of our current standing advice for planners and developers can be found here³.

3. Key natural heritage interests requiring consideration within the EIA

Landscape and Visual Amenity

The proposed Knockcronal Wind Farm would introduce a number of very tall turbines (12 turbines of 200m), which would require lighting, into the South Ayrshire landscape.

The site is less than 6km from the northern boundary of the Merrick Wild Land Area (WLA-01), is adjacent to the Galloway Dark Skies Park buffer area and 2.7km from its core area.

This is a sensitive area for a wind farm of this scale. We advise that there are likely to be significant landscape and visual impacts arising from the proposed scheme on its own and in combination with existing, nearby developments which comprise shorter turbines such as Dersalloch wind farm (23 turbines of 125m) and Hadyard Hill wind farm (52 turbines of 101m). There are also a number of proposed wind farms in the area comprising turbines of a similar height to Knockcronal which would be relevant to this application including adjacent Craiginmoddie wind farm (14 turbines of 200m, at application) and Carrick wind farm (17 turbines of 200m, at scoping), and nearby Clauchrie wind farm (18 turbines of 200m, at appeal) and Knockodhar wind farm (32 turbines of 200m, at scoping). Importantly, all of these developments would require aviation lighting.

The scale and location of the proposed turbines, the requirement for lighting, their relationship to other wind farms and proximity to the Wild Land Area are likely to result in a complex and confusing pattern of development. It is our view that these issues are likely to be challenging to resolve.

In particular we advise that consent of this proposal, in combination with the previously mentioned wind farm proposals, is likely to result in significant adverse cumulative impacts on the Merrick Wild Land Area. **We may object to Knockcronal wind farm should an application be submitted for the proposal in its current form.** Our comments at this stage are however given

² <https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/renewable-energy/onshore-wind-energy>

³ <https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents>

without prejudice to a full and detailed consideration of the impacts of the proposal if it is submitted as a formal application.

With turbines proposed at 5.5km from Cornish Hill and less than 9km from Shalloch on Minnoch, we advise that likely impacts on the Merrick WLA should be fully considered and that viewpoints within the WLA are likely to be key points in considering the design of the wind farm. The EIA should include a Wild Land Assessment and, considering the number of turbines, their height and location, we advise that the assessment should take into account both day and night time impacts on the WLA. Accordingly both the wild land assessment and the lighting assessment should take this into account. Importantly there should be night time viewpoint(s) located within the WLA and the wild land assessment should examine how the lighting would affect the wild land qualities at dusk and after dark.

Assessment for turbine lighting

Aviation lighting is a key issue for this proposal given the height of the turbines and the site's proximity to the Merrick WLA and the Galloway Dark Skies Park. Our advice on the assessment for turbine lighting is that the proposal alone and in combination with other lit schemes could result in adverse impacts on the wild land qualities of the Merrick WLA.

Turbines of 150m or more in height are required to be fitted with aviation lighting. This means that typically turbines would be lit with red aviation lighting mounted on each nacelle and also fitted with lower intensity lights at the mid-point of the towers. Approved mitigation, as set out in CAP 764 – CAA Policy and Guidelines on Wind Turbines guidance (<https://publicapps.caa.co.uk/docs/33/CAP764%20Issue6%20FINAL%20Feb.pdf>), means that lights can potentially be dimmed from 2000 candela (cd) to 200 cd in good visibility (greater than 5km). Tower lighting would typically be 32cd. The proposed development boundary lies less than 5km from the WLA boundary. Our experience is that 200cd lighting can be clearly visible and draw the eye within an unlit context at a distance of 20km. Therefore, based on the information we have and our current understanding of aviation lighting, we advise that the proposal could introduce eye-catching and prominent lights into an area that is important for its dark skies and night time qualities. We advise that the night time study area should include the northern hills of the WLA as well as Shalloch on Minnoch and surrounding ridges.

We advise that the Applicant assesses the potential for adverse impacts of aviation lighting on the wild land qualities of the Merrick WLA. The assessment should follow our guidance at <https://www.nature.scot/professional-advice/landscape/landscape-policy-and-guidance/wild-land/wild-land-area-descriptions-and-assessment-guidance>

More generally, the related landscape and visual assessment of turbine lighting should be informed by the scoping advice at Annex 2 of our recently updated '*general scoping and pre application advice*' document at <https://www.nature.scot/professional-advice/planning-and-development/renewable-energy-development/types-renewable-technologies/onshore-wind-energy/general-advice-wind-farm>

The turbine lighting assessment should consider the cumulative effects of lights from other relevant consented or application stage schemes e.g. Clauchrie and Craiginmoddie wind farms. It should also include the proposed Carrick and Knockodhar wind farms which are currently at scoping. The proposed lighting of the cumulative schemes should be illustrated on the night-time photomontage from e.g. Shalloch on Minnoch (or a suitable agreed viewpoint) and any other night time photomontages. Despite potential mitigation, we advise that lights should be shown at 2000cd on all 12 turbines, as this is the worst case scenario.

If directional lighting is to be employed as a form of mitigation, then it would also be useful to include a lighting intensity ZTV within the assessment (this ZTV should also show the boundaries for the Galloway Dark Skies Park and the Merrick WLA).

Carbon-rich soils, deep peat and priority peatland habitat

3.6 There are areas of class 1 peat within the application site, as identified in section 7.2.8 of the accompanying scoping report (ITPEnergised, October 2020). Class 1 areas are nationally important carbon-rich soils, deep peat and priority peatland habitat and are likely to be of high conservation value.

3.7 While Scottish Planning Policy identifies such areas as ‘areas of significant protection’, the location of a proposal in the mapped area does not, in itself, mean that the proposal is unacceptable, or that carbon rich soils, deep peat and priority peatland habitat will be adversely affected. However, the assessment of impacts of the proposal must demonstrate that any significant effects on the qualities of the area can be substantially overcome by siting, design or other mitigation. We recommend early engagement with SEPA with regard to the reuse and disposal of excavated peat.

3.8 We note, and welcome, that a peat probing survey has been carried out on the site. To inform the assessment of impacts and identification of appropriate mitigation, we advise that peat surveys of the site, measuring the peat deposit to full depth, should be undertaken in accordance with the Scottish Government’s Peatland Survey 2017: Guidance on Developments on Peatland. The results should also be used to inform a peat slide assessment. We recommend early engagement with SEPA with regard to excavated peat reuse and disposal.

3.9 The final siting and design of the proposed development and how this may affect peatland must be fully described and assessed in the EIA Report. How significant effects will be mitigated must also be fully described. We would also find it helpful for mapping to be included in the EIA Report which shows the location of all access roads, infrastructure, borrow pits and turbine pads overlain onto separate NVC and peat maps. We welcome the Applicant’s commitment to avoid peat where ever possible, where not, utilise suitable mitigation and look to reuse peat in line with SEPA’s guidance where appropriate.F

Protected areas within 20km

Our previous advice of 30 May 2019 stated that “We do not consider that the any of the sites (SAC and SSSIs) noted by the Applicant to be connected to the proposed development site. Therefore we are satisfied that they do not require further consideration and can be scoped out of the EIA”. However, recent terrestrial and marine planning applications have identified a potential link between the nearby Ailsa Craig Special Protection Area (SPA) and the potential impact of nearby development on the qualifying species of the SPA.

3.10 Our advice is that the proposed scheme raises possible natural heritage issues of National Importance that will require to be addressed as part of the EIA process. This could lead to an objection from us if it is not possible to demonstrate that any significant impacts can be adequately addressed through siting, design or other mitigation.

3.11 Details of the protected areas referred to below, including their conservation objectives / site management statements, can be found in the [Sitelink](#) section of our website. The developer should assess the direct and indirect impacts of the proposed development on protected areas and their qualifying interests / notified features in the context of their conservation objectives /

site management statements. The assessment should be for the proposal on its own and in combination with other plans or projects also affecting the protected areas.

European sites

3.12 The proposed wind farm would be situated approximately 36 km east of Ailsa Craig Special Protection Area (SPA), which is classified for breeding Gannet, breeding Lesser black-backed gull and a seabird assemblage including nationally important populations of Guillemot, Kittiwake and Herring gull. This is within the representative foraging connectivity distance for these species. Further details on Ailsa Craig SPA, including the sites Conservation Objectives, can be found on the SiteLink page of the NatureScot website at <https://sitelink.nature.scot/site/8463>.

3.13 The SPA's status 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 could 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 at <https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra>.

3.14 The scoping report has no mention of gull species being recorded as part of the survey effort to date. Our advice is that, due to lack of clear detail, we are unable to establish if the development is likely to have a significant effect on the avian qualifying interests of the SPA. In order to address this we require the following information:

- An assessment of potential collision risk for the SPA qualifying avian species and how this may affect the viability of the relevant species' SPA population.

A recent BTO research report provides up to date information relevant to this assessment (see Desk-based revision of seabird foraging ranges used for HRA screening, Woodward et al 2019).

Survey work for a proposed nearby wind farm has identified that both lesser black-backed gull and herring gull (a component of the SPA's seabird assemblage) have been recorded during flight activity surveys, hence our advice that this should be addressed as part of the EIA for this development.

We advise that the comments contained in the Knockcronal Scoping report sections 5.8.4 - 5.8.6 should be re-assessed to reflect the position relating to the qualifying interests of Ailsa Craig SPA.

3.15 The Scoping Report notes that the Merrick Kells Special Area of Conservation (SAC) lies 9.4km to the south-east of the development at its nearest point. Our advice is that it is unlikely that the proposal will have a significant effect on any qualifying interests of the SAC either directly or indirectly due to the geographic distance and lack of hydrological connectivity between the two sites. An Appropriate assessment is therefore not required.

Nationally protected sites

3.16 The Dalmellington Mos , Ness Glen , Loch Doon , Knockgardner, Auchalton , Bogton Loch and Merrick Kells Sites of Special Scientific Interest (SSSI) are all within 10km of the closest part of the application area. While there are natural heritage interests of national importance on these sites, these are unlikely to be affected by the proposal given the geographic separation distance, and that these SSSIs are not directly hydrologically connected to the development site. Therefore the objectives of designation and the overall integrity of the areas will not be compromised.

Habitat management

3.17 We welcome the Applicant's intention to develop a Habitat Management Plan (HMP) for the development and recommend a draft of this is submitted with the EIA Report. The Habitat Management Plan should make provision for mitigation of, or compensation for, significant impacts of the development and measures to enhance the natural heritage interest of the area. The relationships between this plan and the proposed Windfarm Forest Plan should be made clear so that a unified, holistic approach to the management of habitats and land present on the site are presented for comment.

3.18 Development of the HMP should follow our guidance on *Planning for development: What to consider and include in Habitat Management Plans* and the plan should tie in with any relevant bog (and other) habitat restoration proposals for adjacent sites in the area.

<https://www.nature.scot/guidance-planning-development-what-consider-and-include-habitat-management-plans>

3.19 Consideration of habitat enhancement to the condition and quality of the remnant areas of riparian native woodland, and hence watercourse condition, identified at the northern edge of the application area, would be a key concern for this site. We also recommend that black grouse and waders are species that would benefit from appropriate site and habitat management.

Species Considerations

General

4.1 Surveys for protected species should be completed no more than 18 months prior to submission of the application, to ensure that the survey results are a contemporary reflection of species activity at and around the site. Where the ongoing assessment process finds that particular species could be affected by the proposal, then a species specific protection plan should be prepared. If the implementation of the identified mitigation measures within any such plan is not sufficient to avoid an offence under protected species legislation, a licence will be required from NatureScot before the works can proceed. It is important that any licensing issues are fully established as part of the planning application. This is to avoid a situation where planning permission is secured but the lack of a species licence prevents the development from proceeding. Our standing guidance on species survey requirements and associated licensing considerations can be found on our website at <https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-protected-species>.

Red squirrel

4.2 We note that no red squirrels were found in the preliminary surveys but given the proximity to known red squirrel sites and the Nith Priority Area for red Squirrel Conservation <https://scottishsquirrels.org.uk/wp-content/uploads/2020/07/SSRS-Priority-Areas-for-Red-Squirrel-Conservation-in-South-Scotland.pdf> we recommend additional survey effort according to our standing guidance. If this survey work finds that red squirrel could be affected by the proposal a red squirrel protection plan should be prepared. If the implementation of the identified mitigation measures within this plan is not sufficient to avoid offences under protected species legislation, a licence will be required from NatureScot before the works can proceed.

Deer

4.3 We recommend that if deer are present on or will use the development site, an assessment of the potential impacts on deer welfare, habitats, neighbouring and other interests (e.g. access and recreation, road safety, etc.) should be presented. If the development would, or could, result in significant impacts, a draft deer management statement should be provided,

setting out how the impacts will be addressed. There is advice on this in our guidance “*What to consider and include in deer assessments and management at development sites*”

<https://www.nature.scot/guidance-planning-and-development-what-consider-and-include-deer-assessment-and-management> .

4.4 Ornithology - General comments

We support the approach of utilising the ornithology surveys from 2011-12, which supported the previous Linfairn Wind Farm application, as additional baseline information to support the 2019-2020 agreed suite of bird surveys. Reviewing the 2019-2020 ornithological update email (Avian ecology, 22 April 2020), we are content that this approach provides a sufficient level of survey detail to enable the developer to carry out their impact assessment for bird interest at this site.

We advise that should planning consent be granted for this proposal, a breeding bird protection plan should be produced which includes pre-construction surveys for sensitive ornithology species e.g. all breeding raptors and black grouse.

Ground or vegetation clearance works should be undertaken out-with the main bird nesting season (March-August inclusive). If this is not possible, a Breeding Bird Protection plan should be prepared. This should make provision for a suitably experienced ecologist to check the development site before work commences to determine the presence of any nesting birds and to implement suitably sized buffer zones around active nests where no work will take place until the young have fledged or the nest is no longer in use. This will ensure that no nests are destroyed during the site construction works and no offences are committed under the Wildlife and Countryside Act 1981 (as amended).

4.5 Statutory Protected Species – general

A number of protected species are present (bats, water vole, badger, potential red squirrel and otter) and may be impacted by the development proposals and we therefore welcome the surveys carried out to date to identify the potential scope and scale of any such impacts. Terrestrial mammal surveys for bat, otter, red squirrel, badger, water vole all appear to be satisfactory but no information is available for pine marten despite it previously being confirmed as species of conservation interest for this site. (SNH reply to Avian Ecology 10 May 2019 letter). We advise that this omission should be rectified especially in relation to the Applicant’s likely requirement to carry out forest felling works for access and key holing of turbine sites. The Applicant should also fully evaluate the impact of forestry on red squirrels and goshawk whose likely presence in close proximity to the development site must be fully evaluated with reference to required tree felling operations.

4.6 **Bats**

We welcome the general approach to assessing bat use of the site. We acknowledge the value of utilising the 2012-2013 bat survey data from the Linfairn Wind Farm site augmented by April to September 2020 static detector surveys. There is some evidence of a significant peak in bat activity from mid-August to mid-September at some wind farm sites in standing / clear-felled conifer plantations in south west Scotland, as such, we advise that the existing survey effort clearly accounts for this, especially given the likely mix of clear and key hole felling practices proposed.

We recommend post-construction monitoring (static detectors) around the new turbines as this will identify if there have been changes in the pattern of bat activity since construction (e.g. have bats been attracted into the area since construction?).

In relation to *Nyctalus* spp. of bats, if there are any met masts available on site, in line with the above guidance, we recommend that these should be used for at-height monitoring where and when available.

Existing bat data for the site identified the presence of soprano pipistrelle, common pipistrelle, *Pipistrellus* species (assuming potential *Nathusius* pipistrelle), *Myotis* species, Noctule and Leisler's bats. Results suggest bat use favoured open habitats compared to forested areas and that the woodland edge is likely to represent a commuting route. These initial results indicate a guild of 6-7 bat species may use the site and therefore careful siting of turbines is therefore required. The impact of key holing and woodland edge realignment on the individual requirements of these bat species will need careful consideration in the EIA. Our 2019 guidance on bat survey and mitigation can assist with this evaluation and includes full detail on post construction monitoring and use of the Ecobat tool to help with analysis of bat data. <https://www.nature.scot/bats-and-onshore-wind-turbines-survey-assessment-and-mitigation>.

4.7 Great Crested Newt

We note your comment that "Amphibian and reptile surveys will not be undertaken (*and that*) Presence of great crested newt is considered unlikely owing to the lack of suitable waterbodies on, and adjacent to, the site".

If the development site does not contain suitable breeding ponds for great crested newt and the habitat quality within the development site for this species is poor this should be explained within the EIA with full reference to habitat quality assessment.

4.8 Fish

As a minimum, all areas directly (e.g. watercourse crossings) or indirectly (e.g. sediment run off) affected by the development and appropriate buffers up and downstream should have a habitat survey following the Scottish Fisheries Coordination Centre method referenced below. This should inform the likelihood of the presence of salmonids, eels, freshwater pearl mussel and other protected/ BAP species and so the need or otherwise for species specific surveys.

Our guidance on freshwater pearl mussel survey methods can be found on our website via <https://www.nature.scot/plants-animals-and-fungi/invertebrates/freshwater-invertebrates/freshwater-pearl-mussel>. The Scottish Fisheries Coordination Centre (SFCC) webpage <http://www.sfcc.co.uk/resources/habitat-surveying.html> provides links to the recommended SFCC habitat survey method (*Habitat Surveys Training Course Manual, Revised August 2007*), as well as other useful survey method information for fish.

We note that fish habitat and freshwater pearl mussel habitat surveys were undertaken in July 2020. The results will provide information about those most suitable parts of the watercourses for supporting fish and freshwater pearl mussel and hence enable siting, mitigation and enhancement proposals to be considered and implemented as appropriate. Where the proposed development site has permanent watercourses or water bodies in it or connected to it, we advise the Applicant seeks advice from SEPA regarding water crossings and the adequacy of any hydrological work undertaken as part of the EIA.

4.9 Habitats

We advise that the EIA should include a map of the NVC habitat survey results (including all GWDTE) with the wind farm boundary, proposed turbines, tracks and infrastructure layout overlain. A similar map showing peat and peatland habitats should be produced showing their relationship with the fore mentioned site infrastructure.

We would also expect the EIA report to include written descriptions of the NVC habitats found within the site and the impacts of the development on these habitats. We will comment on the adequacy of Phase 1/NVC habitat survey work once full survey details are available to us.

4.10 Forestry

We welcome the approach outlined in section 15.4.1 of the scoping report with regards to the formulation of the Windfarm Forest Plan as well as the opportunity to discuss proposals relating to sensitive woodland management. We feel this processes will be an effective mechanism that will reflect the requirements of important ecological and ornithological features identified to date in the EIA process.

The requirement to keyhole turbines into existing forestry should be assessed to understand if bats and birds will be attracted to this new habitat and potentially be placed at greater risk of collision or other impacts. This is particularly relevant for *Nyctalus* species of bats and those species of ground nesting birds that can be drawn to habitats in keyhole areas. We advise that your assessment takes into account this possibility according to the following guidance **Wind farm proposals on afforested sites – advice on reducing suitability for hen harrier, merlin and short-eared owl (SNH 2016)** <https://www.nature.scot/wind-farm-proposals-afforested-sites-advice-reducing-suitability-hen-harrier-merlin-and-short-eared>

We also advise that the impact of any proposed forestry work is assessed in relation to the likely presence of a nearby goshawk territory. Survey work carried out to date has informed our working assumption that there is a local breeding pair of goshawks which could be affected by timing and extent of felling works. As stated previously, this advice is also relevant for red squirrels and pine martens.

We recommend consultation with Scottish Forestry in relation to forest management and any requirements for compensatory planting. See <https://scotland.forestry.gov.uk/images/corporate/pdf/Implementation-Guidance-Control-of-woodland-removal.pdf>.

4.11 Vehicular Access routes

We acknowledge that the choice of final access route to the turbine development area from the public highway is still under consideration. We look forward to being consulted on the route and its environmental impacts in order to assess the entirety of the application as part of the EIA submission for this development.

4.12 Mitigation

The following mitigation is taken from the Applicant's submission and we broadly welcome this proactive approach to site based mitigation and welcome the opportunity to advise on the Construction Environmental Management Plan (CEMP).

1. Development infrastructure will be designed to minimise the requirement for land-take and the number of watercourse crossings and woodland felling.
2. New watercourse crossings required will be designed in accordance with best practice and enable the free passage of fish and other wildlife.
3. A Construction Environmental Management Plan (CEMP) (or similar) will be in place during the construction, operational and decommissioning phases of the Proposed Development. The CEMP will include all good practice construction measures, pollution prevention

controls and monitoring to be implemented over the course of the development in line with current guidance.

4. A minimum 50 m buffer between Proposed Development infrastructure will be applied around all watercourses in so far as possible having regard to other ecological and non-ecological constraints.
5. A minimum 50 m buffer (from blade tip) will be applied to watercourses and woodland in so far as possible having regard to other ecological and non-ecological constraints.
6. An ECoW will be appointed to supervise works during the construction phase to ensure the agreed ecological mitigation and management measures are implemented.

5. Responses to specific questions detailed in the Scoping Report

5.1 Where not covered above, our responses to the specific questions included in the Scoping Report are given in Annex 1.

Concluding remarks

I hope that this response will assist you in your consideration of this scoping request. However, please contact me should you wish to discuss our advice. Please note that while we are supportive of the principle of renewable energy, our advice is given without prejudice to a full and detailed consideration of the impacts of the proposal if it is submitted as a formal application.

Finally, this advice is provided by NatureScot, the operating name of Scottish Natural Heritage.

Yours sincerely

Ian Cornforth

Operations Officer, Ayrshire & Arran

ian.cornforth@nature.scot

cc- Alastair McGibbon Supervisory Planner- South Ayrshire Council Priority Projects team

Annex 1- NatureScot responses to Scoping Report's focused questions

Landscape and Visual Impact Assessment

Do you have any comments on the proposed approach and methodology?

No specific comments. The LVIA should be carried out in accordance with GLVIA#3 and recognised guidance. Please see our specific advice in our letter.

Are you in agreement with the proposed Study Areas?

The study area shown in Figure 4.1 (45km) is acceptable for turbines of this height.

Are you in agreement that the assessment of the effects on landscape character receptors (except landscape planning designations) should focus on areas within a 20km radius?

Yes we agree.

Do you have any comments or suggestions in relation to the Preliminary Representative Viewpoint Locations shown in Table 4.2 and illustrated on Figure 4.3?

We have not found a hub height ZTV in the submitted material. This should influence the selection of viewpoints and is relevant for the assessment of aviation lighting. The final list of viewpoints is the responsibility of the landscape consultant and each should be microsituated to show the worst case scenario. We suggest that a viewpoint at Cornish Hill should be considered as this is a relatively accessible location in the north of the WLA.

Do you have any comments on the landscape and visual effects of turbine lighting?

See comments above 'Assessment of turbine lighting'.

Do you have any comments or suggestions on the approach to cumulative landscape and visual assessment?

There are a large number of existing wind farms and proposals at various stages of planning. The LVIA should focus on the most relevant which in this case will be those within roughly 25km.

Ornithology

-1 Do consultees agree that the range of desk study and surveys proposed is sufficient and proportionate to inform the design and assessment of the Proposed Development?

Most of the wind farm is within open habitats which appears to currently be of relatively low ornithological value due to grazing, so while there may be some possible effects around the open habitats that surround the wind farm, overall we would not expect there to be any particularly significant issues. Management of the forestry linked to the site needs to address issues relevant to pine marten, red squirrel and Goshawk as identified in our main letter.

-2 Do consultees agree that the full range of likely effects to be assessed within the EIAR has been adequately identified and is proportionate to the nature of the Proposed Development?

We agree with the approach taken to date including use of both our wider countryside guidance <https://www.nature.scot/guidance-assessing-significance-impacts-bird-populations-onshore-wind-farms-do-not-affect-protected>, as well as our cumulative guidance, this is appropriate.

However-we would add that the Applicants should appraise themselves of our current advice in this letter with respect to assessing the impact of this proposal on the Ailsa Craig SPA.

3 Are there any other relevant consultees who should be contacted with respect to the ornithology assessment and scope of baseline information gathering?

The South of Scotland Black Grouse Group should also be approached. Whilst we appreciate the absence of black grouse on surveys, it would be helpful to obtain the view of the Group, for historical information and any possible, longer term management measures that may be needed.

-4 Do consultees agree with the assessment and evaluation methodology proposed?

Yes but see reply to Q2 above.

Ecology

Do consultees agree that the range of desk study and ecological surveys proposed is sufficient and proportionate to inform the design and assessment of the Proposed Development?

Please see our specific comments in our letter relating to ecological survey requirements.

While the survey work is likely to be sufficient to inform the EIA, we reserve full judgement until we have considered the full survey findings in light of our requests made for additional detail relating to key species.

➤ Do consultees agree that the full range of likely effects to be assessed within the EIAR has been adequately identified and is proportionate to the nature of the Proposed Development?

See our letter for comments

➤ Are there any other relevant consultees who should be contacted with respect to the ecology assessment and scope of baseline information gathering?

We suggest that South Ayrshire Council are also contacted in relation to ecological issues, and Scottish Forestry in relation to forest management and any requirements for compensatory planting. See <https://scotland.forestry.gov.uk/images/corporate/pdf/Implementation-Guidance-Control-of-woodland-removal.pdf>

➤ Do consultees agree with the assessment and evaluation methodology proposed?

Yes, we particularly welcome the approach outlined in the Scoping report section 6.5.16 relating to Cumulative Impacts in relation to the assessment of impacts on species associated with hydrological mobility - the cumulative impact assessment should account for the existing and potential aquatic species found in the nearby watercourses – notably fresh water pearl mussel, eels, lampreys, salmon and sea trout as well as otter and bats.

Melrose J (Joyce)

From: Ed Tooth <Ed.Tooth@rspb.org.uk>
Sent: 02 February 2021 13:40
To: Econsents Admin
Cc: Brown C (Carolanne)
Subject: Scoping Opinion Knockcronal Wind Farm

Dear Carolanne,

ELECTRICITY ACT 1989**THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017****REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR KNOCKCRONAL WIND FARM**

I'm just writing to confirm that we have no comments to make on the above-referenced scoping report.

All the best,

Ed Tooth

Conservation Officer – Scottish Lowlands and Southern Uplands (Dumfries & Galloway, East Ayrshire, Scottish Borders, South Ayrshire and South Lanarkshire)

Please note that I am currently working from home where mobile signal is very poor. Email is the best way to contact me at this time.

Dumfries and Galloway Office – RSPB, The Old Schoolhouse, Crossmichael, Castle Douglas, DG7 3AP
Mobile REDACTED

rspb.org.uk

Let's give nature a home in Scotland



RSPB Scotland is part of the RSPB, the UK's largest nature conservation charity, inspiring everyone to give nature a home. Together with our partners, we protect threatened birds and wildlife so our towns, coast and countryside will teem with life once again. We play a leading role in BirdLife International, a worldwide partnership of nature conservation organisations.

The Royal Society for the Protection of Birds (RSPB) is a registered charity: England and Wales no. 207076, Scotland no. SC037654

Scottish Forestry - Consultation Response

Brown C (Carolanne)

From: Howieson D (Doug)
Sent: 15 February 2021 16:21
To: Brown C (Carolanne)
Subject: EC00002181 - Knockcronal Windfarm

Carolanne.

I'm sorry that we've missed your deadline for requiring an extension but just to say that I am contact with the proposed actions for forestry consultation as described.

Doug.

Name: Doug Howieson MICFor
Job Title: Conservator

Scottish Forestry
Greystone Park | 55/57 Moffat Road | Dumfries | DG1 1NP
Direct: REDACTED
Mobile: REDACTED
Email: doug.howieson@forestry.gov.scot

forestry.gov.scot
[@scotforestry](https://www.facebook.com/scottishforestry)

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation.



Econsents_Admin@gov.scot

Carolanne Brown
 Directorate for Energy and Climate Change
 The Scottish Government

15/02/2021

Dear Ms Brown,

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

**REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION
 FOR KNOCKCRONAL WIND FARM**

Thank you for your email of 14 January 2021 requesting observations on the above application. We gratefully acknowledge the additional time allowed for our outline scoping response. The applicant is welcome to contact the Society directly if a more detailed response is required.

The National Catalogue of Rights of Way (CROW) shows that right of way SKC7 is affected by the area shown within the red line boundary on *Figure 1.1: Site Location Plan*. A RoW map is enclosed showing SKC7. As there is no definitive record of rights of way in Scotland, there may be other routes that meet the criteria to be rights of way but have not been recorded as they have not yet come to our notice.

Right of way SKC7 is also used by a route promoted for its historic interest by our Heritage Paths project. HP130 *Old Road through Straiton* is shown on the enclosed HP map.

Additionally a route described in our popular publication *Scottish Hill Tracks* uses right of way SKC7 but with a slight variation across the application site. This route, Scottish Hill Track number 82 *Barr to Straiton and Patna*, is shown as HT385 on the enclosed SHT map.

Above we have focussed on the immediate area of the proposed development. The applicant proposes study areas ranging from 10km to 45km: maps of a wider search area are available from the Society if required by the applicant to inform their Environmental Impact Assessment (EIA).

You will no doubt be aware that there may now be general access rights over any area of land under the terms of the Land Reform (Scotland) Act 2003. We would strongly

The Scottish Rights of Way and Access Society, 24 Annandale Street, Edinburgh EH7 4AN (Registered Office)
 0131 558 1222 info@scotways.com www.scotways.com

ScotWays is a registered trade mark of the Scottish Rights of Way and Access Society, a company limited by guarantee.
 Registered Company Number: SC024243. Scottish Charity Number: SC015460.

recommend that the applicant consults the Core Paths Plans, prepared by the access team at South Ayrshire Council as part of their duties under this Act.

At the scoping stage the recreational baseline is incomplete, indeed public recreational access does not appear to have been considered at all. The effects that the proposed development will have on the routes within the application site and in the wider study areas need to be considered and assessed.

At present there is no indication as to the positioning of any internal access tracks so we are unable to comment on these at this time. We would however ask that all public recreational routes are protected when siting the internal tracks and also when deciding the access route into the proposed development site.

Although we understand that there is very little guidance regarding the siting of turbines in relation to established paths and rights of way, we would like to draw your attention to the following:

Extract from the Welsh Assembly Government's Technical Advice Note on Renewable Energy (TAN 8)

Proximity to Highways and Railways

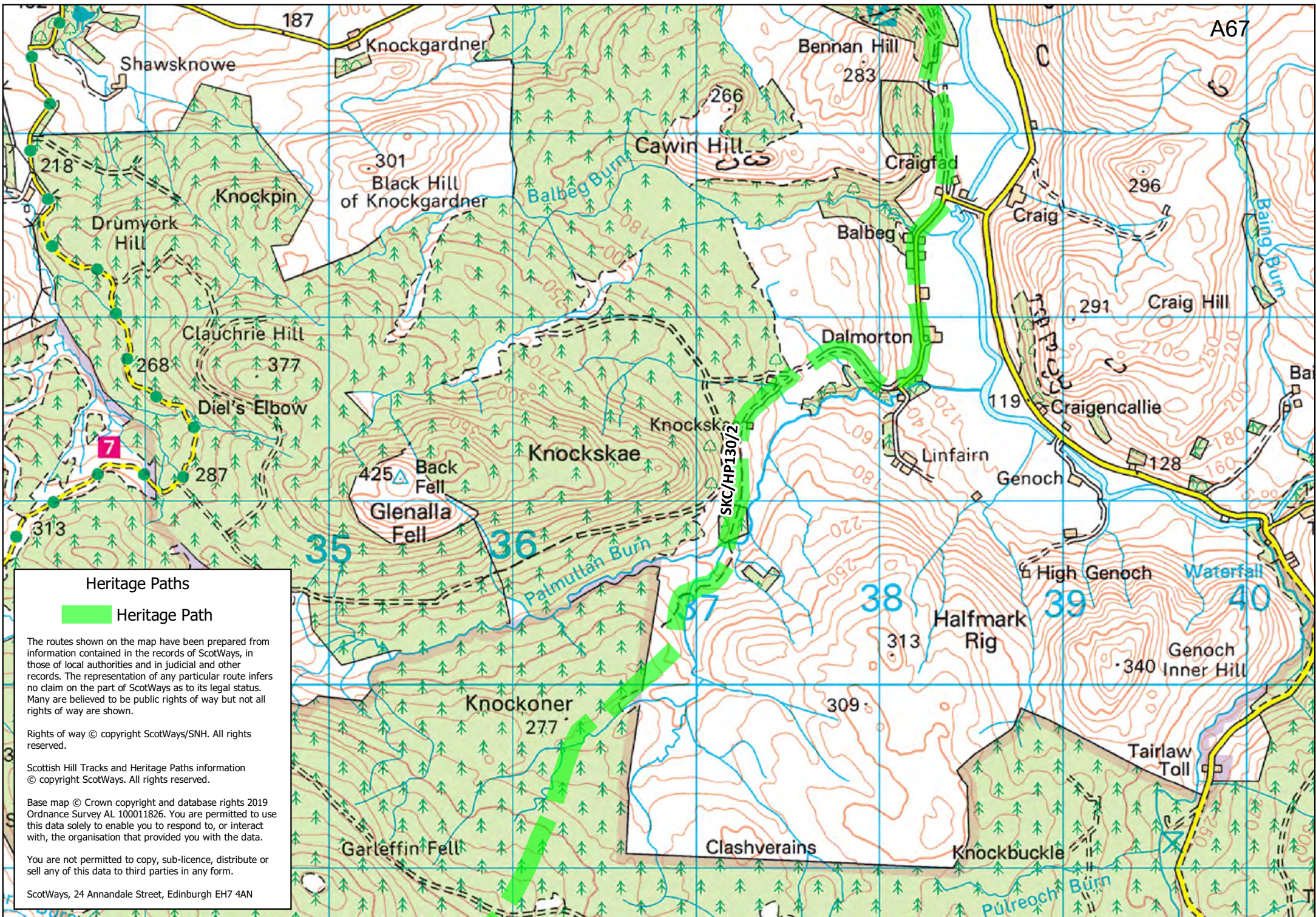
2.25 It is advisable to set back all wind turbines a minimum distance, equivalent to the height of the blade tip, from the edge of any public highway (road or other public right of way) or railway line.

I hope the information above is useful to you. Please do not hesitate to contact me if you need more detail or have any further queries.

Yours sincerely,

Redacted

Lynda L Grant
Access Officer



Heritage Paths

Heritage Path

The routes shown on the map have been prepared from information contained in the records of ScotWays, in those of local authorities and in judicial and other records. The representation of any particular route infers no claim on the part of ScotWays as to its legal status. Many are believed to be public rights of way but not all rights of way are shown.

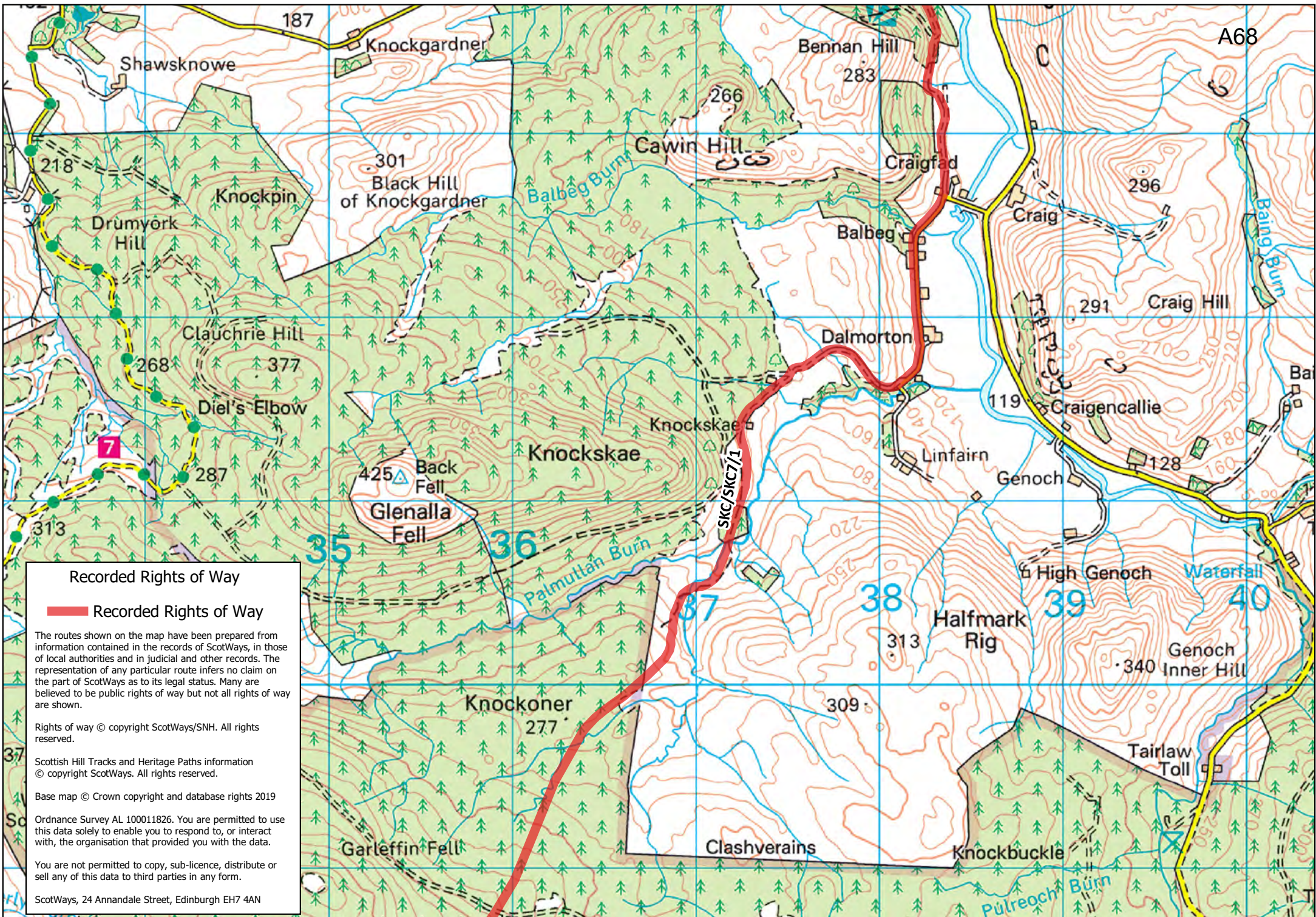
Rights of way © copyright ScotWays/SNH. All rights reserved.

Scottish Hill Tracks and Heritage Paths information © copyright ScotWays. All rights reserved.


Base map © Crown copyright and database rights 2019 Ordnance Survey AL 100011826. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data.

You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.

ScotWays, 24 Annandale Street, Edinburgh EH7 4AN



Recorded Rights of Way

 Recorded Rights of Way

The routes shown on the map have been prepared from information contained in the records of ScotWays, in those of local authorities and in judicial and other records. The representation of any particular route infers no claim on the part of ScotWays as to its legal status. Many are believed to be public rights of way but not all rights of way are shown.

Rights of way © copyright ScotWays/SNH. All rights reserved.

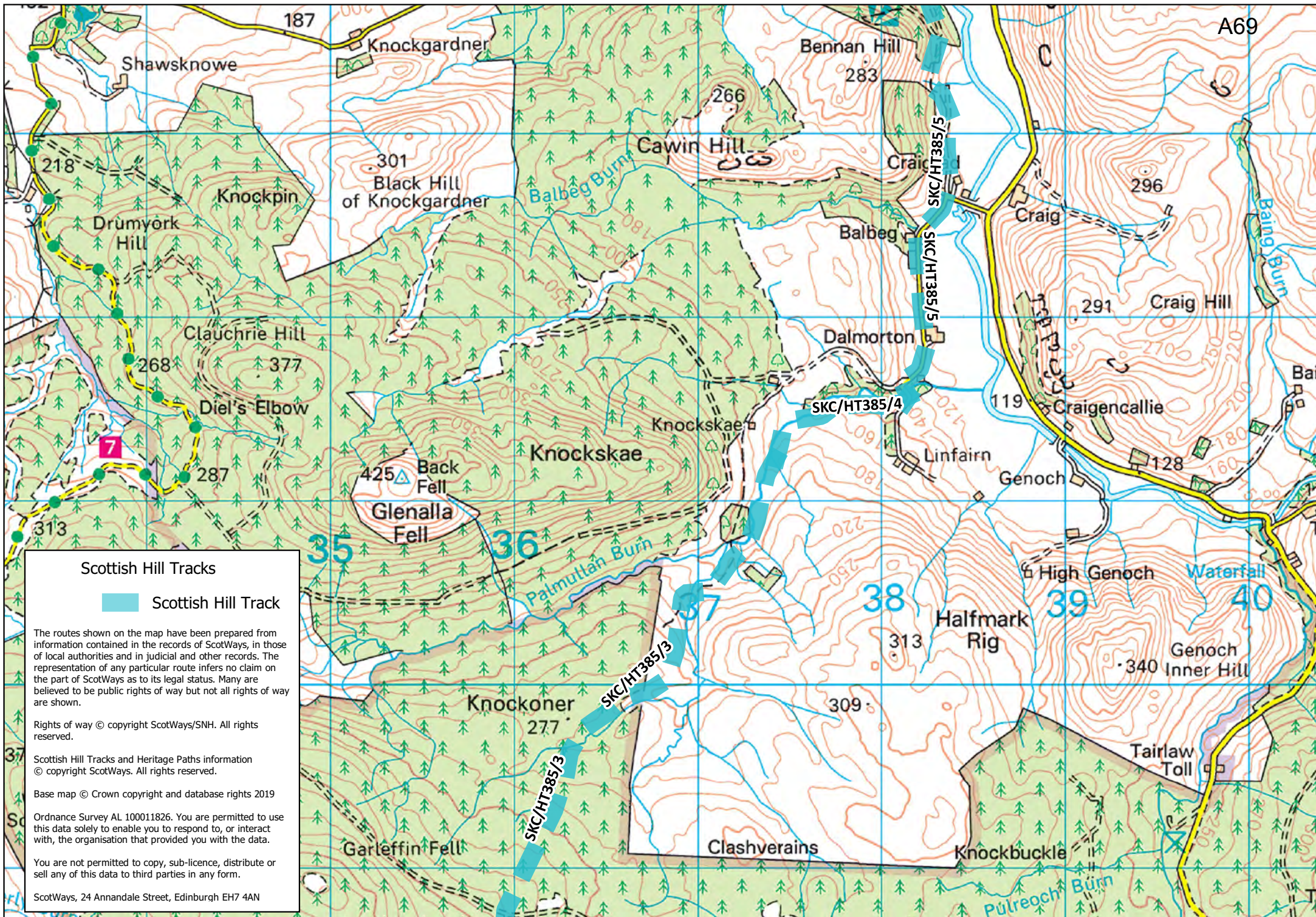
Scottish Hill Tracks and Heritage Paths information © copyright ScotWays. All rights reserved.

Base map © Crown copyright and database rights 2019

Ordnance Survey AL 100011826. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data.

You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.

ScotWays, 24 Annandale Street, Edinburgh EH7 4AN



Friday, 15 January 2021

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



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

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

Dear Sir/Madam

SITE: Knockcronal Wind Farm, South Ayrshire
PLANNING REF: ECU0002181
OUR REF: DSCAS-0030463-Y9R
PROPOSAL: Knockcronal Wind Farm

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 and would advise the following:

[Asset Impact Assessment](#)

According to our records, the development proposals impact on existing Scottish Water assets.

The applicant must identify any potential conflicts with Scottish Water assets and contact our Asset Impact Team via [our Customer Portal](#) to apply for a diversion.

The applicant should be aware that any conflict with assets identified may be subject to restrictions on proximity of construction. Please note the disclaimer at the end of this response.

[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



SW Public
General

To find out more about connecting your property to the water and waste water supply visit:



>>

So, how are we doing?

We'd love to know what we're doing well or could do better. We promise we're listening, [click here](#) to tell us...



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,

Planning Application Team

Development Operations Analyst
developmentoperations@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."



Brown C (Carolanne)

From: beryl leatherland <beryl@chway.plus.com>
Sent: 03 February 2021 14:38
To: Brown C (Carolanne)
Subject: Re: FW: Scoping Opinion Knockcronal Wind Farm

Hello

Thank you for this reminder. Please note that I do not intend to submit a response on behalf of the Scottish Wild Land Group.

Beryl Leatherland



The Coal
Authority

Resolving the **impacts** of mining

For the Attention of: Ms Carolanne Brown
Energy Consents
Directorate for Energy and Climate Change
Scottish Government

[By email: Econsents_Admin@gov.scot]

15 January 2021

Dear Ms Brown

**EC00002181
ELECTRICITY ACT 1989
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND)
REGULATIONS 2017
REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR
KNOCKCRONAL WIND FARM**

Thank you for your notification of 14 January 2021 seeking the views of the Coal Authority on the above scoping opinion.

I have checked the site location plan (Figure 1.1) against the information held by the Coal Authority and can confirm that the proposed development site is located outside of the defined coalfield. Accordingly, if you consider that the application is EIA development, there is no requirement for the applicant to consider coal mining legacy or mineral safeguarding as part of their Environmental Impact Assessment. In addition, there will be no need to consult us on any subsequent planning application for this site.

Please do not hesitate to contact me if you would like to discuss this matter further.

Yours sincerely

REDACTED

Deb Roberts *M.Sc. MRTPI*
Planning & Development Manager

[Disclaimer](#)

The above consultation response is provided by The Coal Authority as a Statutory Consultee and is based upon the latest available data on the date of the response, and electronic consultation records held by The Coal Authority since

Development Management and Strategic Road Safety
Roads Directorate

Buchanan House, 58 Port Dundas Road, Glasgow G4 0HF
 Direct Line: REDACTED , Fax: 0141 272 7350
John.McDonald@transport.gov.scot



Carolanne Brown
 Energy Consents Unit
 The Scottish Government
 5 Atlantic Quay
 150 Broomielaw
 Glasgow
 G2 8LU

Your ref:
 EC00002181

Our ref:
 GB01T19K05

Date:
 28/01/2021

econsents_admin@gov.scot
carolanne.brown@gov.scot

Dear Sirs,

ELECTRICITY ACT 1989

THE ELECTRICITY (APPLICATIONS FOR CONSENT) REGULATIONS 2017

REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR KNOCKCRONAL WIND FARM

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

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

Proposed Development

The proposal comprises 12 turbines up to 200m blade tip height on a site located approximately 11km south-west of Dalmellington and 15km south-east of Maybole in South Ayrshire. The nearest trunk road to the site is the A77(T) at Maybole.

Assessment of Environmental Impacts

Chapter 10 of the SR deals with the potential environmental impacts associated with Traffic and Transport. This states that the forthcoming Environmental Impact Assessment Report (EIAR) Transport & Access Chapter will be supported by both a Transport Assessment Report and Abnormal Load Route Survey and we note that the thresholds as indicated within the Institute of Environmental Management and Assessment (IEMA) Guidelines for the Environmental Assessment of Road Traffic are to be used as a screening process for the assessment. Transport Scotland is in agreement with this approach.

We note that the A77(T) will form part of the study area, with traffic data for this route being obtained from DfT traffic count data. It is stated that National Road Traffic Forecast (NRTF) Low Traffic Growth assumptions will be used to provide a future year baseline. Transport Scotland is satisfied with this approach and would add that an alternative source of traffic data is Traffic Scotland's National Traffic Data System (<https://ntds.trafficscotland.org/>).

The SR also indicates that environmental impacts such as driver delay, pedestrian amenity, severance, safety etc will be considered and assessed where appropriate, using the IEMA Guidelines. These specify that road links should be taken forward for assessment if:

- Traffic flows will increase by more than 30%, or
- The number of HGVs will increase by more than 30%, or
- Traffic flows will increase by 10% or more in sensitive areas.

This approach is considered acceptable and we are content that no further assessment is required if the above thresholds are not exceeded.

Abnormal Load Assessment

The SR states that detailed swept path analysis will be undertaken for the main constraint points on the route from the port of entry through to the site access junction. Transport Scotland will require to be satisfied that the size of turbines proposed can negotiate the selected route and that transportation will not have any detrimental effect on structures within the trunk road route path.

The Abnormal Loads Assessment report should identify 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.

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

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 on REDACTED .

Yours faithfully
REDACTED

John McDonald

**Transport Scotland
Roads Directorate**

cc Alan DeVenny – SYSTRA Ltd.

Brown C (Carolanne)

From: Robins, Paul (DRS) <Paul.Robins@glasgow.gov.uk>
Sent: 21 January 2021 11:00
To: Econsents Admin
Cc: Brown C (Carolanne)
Subject: ELECTRICITY ACT 1989 REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR KNOCKCRONAL WIND FARM (OFFICIAL)

OFFICIAL

Dear Carolanne,

I refer to the above scoping request sent to me for consultation.

I have had a look at this very large proposal this morning and write to advise that without access to our GIS, database and archive systems, we can't check on all of the details contained in the scoping report but I can confirm that the topics cited and the proposed actions would appear appropriate and agreeable at this time.

Regards

Paul Robins
West of Scotland Archaeology Service
231 George Street
Glasgow
G1 1RX

Please note: During the current Covid-19 "lockdown", I am working from home, and do not have access to all work files and systems or phones. I apologise for any concomitant delay in replying, or uncertainty in response.

OFFICIAL

Glasgow - proud host of the 26th UN Climate Change Conference (COP26) - UK2021.

Please print responsibly and, if you do, recycle appropriately.

Disclaimer:

This email is from Glasgow City Council or one of its Arm's Length Organisations (ALEOs). Views expressed in this message do not necessarily reflect those of the council, or ALEO, who will not necessarily be bound by its contents. If you are not the intended recipient of this email (and any attachment), please inform the sender by return email and destroy all copies. Unauthorised access, use, disclosure, storage or copying is not permitted. Please be aware that communication by internet email is not secure as messages can be intercepted and read by someone else. We therefore strongly advise you not to email any information which, if disclosed to someone else, would be likely to cause you distress. If you have an enquiry of this nature then please write to us using the postal system. If you choose to email this information to us there can be no guarantee of privacy. Any email, including its content, may be monitored and used by the council, or ALEO, for reasons of security and for monitoring internal compliance with the office policy on staff use. Email monitoring or blocking software is also used. Please be aware that you have a responsibility to make sure that any email you write or forward is within the bounds of the law. Glasgow City Council, or ALEOs, cannot guarantee that this message or any attachment is virus free or has not been intercepted and amended. You should perform your own virus checks.

Protective Marking

Melrose J (Joyce)

From: John Haston REDACTED
Sent: 23 February 2021 14:17
To: Brown C (Carolanne); Econsents Admin
Subject: Re: Scoping Opinion Knockcronal Wind Farm
Attachments: Knockcronal Scoping Response - Jeanette Heggs.pdf; Knockcronal Scoping Response - Gordon Ferrie.pdf; Knockcronal Scoping Response - Bea Holden.pdf; Knockcronal Scoping Response - Steve O'Brien.pdf

Dear Carolanne

We have collected response to this application from individual community councillors. The current Covid-19 restrictions prevent us from carrying out a survey of our community, and South Ayrshire Council have stated that any votes we conduct as a community council using video conferencing are invalid. This leaves us the only option of submitting individual councillor's responses.

We have responses from four of our community councillors, see attached.

I would like to add that my own views are broadly in line with the detailed response submitted by Bea Holden. I would also like to say that the governments approach has been divisive, to split the countryside into dozens of small wind farm developments, each of which has to be responded to by rural community councils, who often lack the legal clout of the multi-national developers. Then when the community appears to win one case, such as Linfairn, it comes back a few years later as a much larger wind farm development. These latest wind farm proposals are being pushed through during a pandemic when we are not able to consult properly with our communities, and our response is therefore greatly hampered.

Kind regards,
John Haston
Secretary
Crosshill, Straiton and Kirkmichael Community Council

I welcome this opportunity to comment on the Scoping Report for the proposed Knockcronal Wind Farm. The Developer, Statkraft, has expressed a wish to engage at an early with the community and with the various Community Councils impacted by this Proposal. They are aware that an earlier Proposal for a wind farm at this location (Linfairn) was put forward. It attracted many thousands of objections including the majority of local people, this Community Council, elected representatives and South Ayrshire Council. It was subsequently withdrawn on the advice of Airvolution. This development is very similar to the previous one. Although there are fewer turbines the height, at up to 200m, are substantially taller. This would result in the Proposal being visible from many more areas and having a more dominant presence in the landscape.

4.9 Scoping Questions to Consultees – LVIA

- **Do you have any comments on the proposed approach and methodology?**

The Developer states they will follow Optimised Environments Ltd (OPEN) methodology which, they assert, generally accords with 'Guidelines for Landscape and Visual Impact Assessments: 3rd Edition'. Optimised Environments Ltd seems to be company specialising in architecture and urban developments and have done several landscape planning projects involving wind farms. As they derive an income from providing services to wind energy companies their methodology might not be as robust as the industry standard guidelines. Their methodology appears not to be available on their website so it is impossible to know what it actually is and we cannot assess it for validity. The Developer should not refer to this document and should, instead follow the 'Guidelines for Landscape and Visual Impact Assessments: 3rd Edition'.

- **Are you in agreement with the proposed Study Areas?**

We agree with the 45km radius.

The physical effects should not be limited to the area within the site: access tracks, off-site borrow pits and any other development not on the site should also be included.

Residential Visual Amenity Assessment should definitely be extended outwith 2km given the height of the proposed turbines.

The list of Potential Impacts needs to be expanded (4.7). Newton Stewart Hill Road is a short cut for the South West 300 route and is used by cyclists, classic car rallies, bikers and many other tourists. It would also be visible from interior roads, sites and rest points. The SW300 is not intended as just a route to follow but as a starting point to explore further.

- **Are you in agreement that the assessment of the effects on landscape character receptors (except landscape planning designations) should focus on areas within a 20km radius?**

Yes

- **Do you have any comments or suggestions in relation to the Preliminary Representative Viewpoint Locations shown in Table 4.2 and illustrated on Figure 4.3?**

More consultation needs to be done with the communities to refine this list.

- **Do you have any comments on the landscape and visual effects of turbine lighting?**

As all turbines hubs would be seen from the Dark Sky Observatory then any lighting could compromise viewing objects low down in the sky (such as the recent planetary conjunction). Lighting would also have negative impacts on those viewing the night sky from other viewing locations within the Dark Sky Park. The Dark Skies can also be viewed from many areas outwith the boundaries of the actual Park including Straiton and the upper Girvan valley.

In table 4.2 visual impact of turbine lighting has been scoped out of construction and decommissioning but there is not mention of floodlighting of the compound and other areas during construction. From experience floodlighting of compounds and associated areas can be very intense and would negatively impact the Dark Sky Park.

Construction lighting could also be a nuisance to nearby properties such as Knockskae.

- **Do you have any comments or suggestions on the approach to cumulative landscape and visual assessment?**

Yes. We firmly believe wind farms at Scoping stage should be included in cumulative assessments.

5.9 Scoping Questions to Consultees – Ornithology

- Do consultees agree that the range of desk study and ecological surveys proposed is sufficient and proportionate to inform the design and assessment of the Proposed Development?

No. The Developer is relying on studies undertaken for a previous application on this site (Linfairn) by Sgurr Energy which were shown to be unreliable. The study area needs to extend beyond the 2km study area for scarce breeding raptors. The Developer mentions “members of the field team were also able to advise on established local knowledge of potential ecological constraints.” I welcome local knowledge being utilised but these constraints should be explained and the local knowledge sources explained.

- Do consultees agree that the full range of likely effects to be assessed within the EIAR has been adequately identified and is proportionate to the nature of the Proposed Development?

No. Too much reliance has been placed on the previous application’s studies. Linfern Loch is located close to the site and is potentially an attractive area for many species of birds. The Proposed Development is substantial and a proportionate assessment should be carried out.

- Are there any other relevant consultees who should be contacted with respect to the ecology assessment and scope of baseline information gathering?

I am assuming you mean ornithology and not ecology. As a Hen Harrier has been recorded in the area I suggest that reference should be made to the following: Nicola Stanek, Dicing with Death? An evaluation of Hen Harrier (*Circus cyaneus*) flights and associated collision risk with wind turbines, using a new methodology.

- Do consultees agree with the assessment and evaluation methodology proposed?

No, I do not agree with Receptors and Impacts to be Scoped In and Out in Table 5.3. *Red listed birds* should not be scoped out during the operation, nor should *Habitat Loss, Fragmentation or Change* be scoped out during construction and decommissioning, nor should *Disturbance to and loss of nest sites, eggs and/or dependent young* during operation as maintenance work and replacement of blades are necessary. *Mortality due to collision* should not be scoped out during operation.

7.9 Scoping Questions to Consultees – Peat

- We would request advice from SEPA on the upper limiting depths for borrow pit restoration given the variable peat depths present across the site.

Is this a question?

8.9 Scoping Questions to Consultees – Noise

- Do consultees agree that the baseline background noise survey results (Appendix 8.1), as presented in the baseline noise assessment are suitable and representative for the purposes of an assessment in accordance with ETSU R 97 and the IOA GPG?

Strongly opposed to using previous noise survey results as they were taken using incorrect equipment, equipment was placed in unsuitable locations which rendered results unreliable.

10.9 Scoping Questions to Consultees – Traffic

The questions here cannot be answered as no traffic route has been identified after Glasgow or the Port of Ayr. It is therefore impossible to say what methodology would be appropriate to use. I feel strongly that the traffic route to site, and if there were suitable locations within the site to source stone should have been disclosed prior to the Scoping Report being submitted to the Energy Consents Unit.

11.9 Scoping Questions to Consultees – Socio-economics & Tourism

- **Do you agree with the proposed approach for the Socio-economics and Tourism assessment set out above?**

No. Given the blanket assertion from the Developer that they see no correlation between a wind farm development and loss of tourism it is obvious a thorough and details assessment of potential effects needs to be made. I would strongly urge the Developer to conduct a survey of the local tourist providers to ascertain the number of businesses, their turnover, the profile of visitors, and tourism spend. I disagree with using the methodology developed by BiGGAR Economics. Their Report has been widely discredited and I believe it would not be appropriate to use it. Instead the Developer should refer to the older, but more robust, Moffat Report and their own comprehensive research. If they look at previous submissions (to Linfairn) they will be able to identify some sources and information in which to begin their research.

13. Telecommunications and Television

It may well be that local properties suffer interference to satellite connections and this should be assessed.

14.7 Scoping Questions to Consultees – Shadow Flicker

- **Do you agree with the study area outlined above?**

No. By restricting the calculations to 10x rotor blades potential properties which might be impacted will be scoped out. This is not acceptable. The Scottish Executive refers to this as a 'general rule' and states that "Where this could be a problem, developers should provide calculations to quantify the effect". I would like the full extent of shadow flicker on all properties in the upper Girvan valley to be assessed.

- **Do you agree to the above methodology to identify significant effects?**

No. I do not accept that receptors have to experience shadow flicker for more than 30 minutes a day to be considered a 'significant effect'. In my view no amount of shadow flicker is acceptable but 15 minutes has been mooted as significant. I do not agree with the 'realistic' shadow flicker methodologies. Limited effects to a 1m x 1m ground floor window is not acceptable. Shadow flicker can occur in gardens and garages/workshops. It is vital it is assessed correctly.

Knockcronal Wind farm

Preamble

Knockcronal WF is broadly on the same site as Linfairn WF which failed to progress after Willowind withdrew from a Public Inquiry in 2017/18. Linfairn was regarded as a very hostile proposal which was met with widespread opposition from all political parties, over 6,500 objections and 92.5% of locals.

Knockcronal WF is an even greater danger to this area of outstanding natural beauty as the proposed 12 wind turbines are up to 200m in height compared to 125m in the case of Linfairn – a 60% increase.

Knockcronal Scoping Report – Response

Chapter 4: Landscape and Visual

>Do you have any comments on the proposed approach and methodology?

Yes. The proposed approach and methodology should consider the 6,500 objections and the concerns that were expressed two/three years ago.

>Are you in agreement with the proposed study area?

No. With turbine heights of up to 200m compared to 125m height for Linfairn the study area should be increased to cover more areas of visibility.

>Are you in agreement that the assessment of the effects on landscape character receptors should focus on areas within a 20km radius?

No. This should be greatly increased to take most of North Carrick, Arran, Mull of Kintyre etc.

>Do you have any comments in relation to the Preliminary Representative Viewpoint Locations?

Note that there are 7 Viewpoint Locations along the Girvan Water valley which shows the developers know this WF will have a major impact on the visual environment.

>Do you have any comments on the landscape and visual effects of turbine lighting?

This is a huge issue. In an area renowned for its World famous Dark Skies Park, superb star gazing opportunities etc having turbines at over 150m high will have an enormous detrimental effect on the very unique night environment.

A night-time impact assessment must be included in any EIA.

>Do you have any comments on the approach to cumulative landscape and visual assessment?

Including Carrick and Craiginmoddie simply emphasises that this area is being excessively blighted for the advantage of others outside this area.

Knockcronal should not progress until decisions on Carrick and Craiginmoddie are considered. Ultimately there could be 120 wind turbines with heights of up to 230 metres in a relatively small geographical area.

It is impossible to mitigate against the impact of 200metre high turbines on the degradation of landscape and visual impacts listed in 4.7.1.

5. Ornithology

>Do consultees agree that the range of desk study and ecological surveys proposed is sufficient and proportionate to inform the design and assessment of the Proposed Development?

No. Much the evidence will be out of date. During the COVID-19 Pandemic of 2020/21, ornithological life and patterns have changed remarkably.

>Do consultees agree that the full range of likely effects to be assessed within the EIAR has been adequately identified and is proportionate to the nature of the Proposed development?

No. New research should be undertaken on the impact of 200 metre turbines which are 75 metres higher than the original Linfairn proposals that were objected to so strongly. Statkraft already admit there will be major issues regarding habitat loss and disturbance to breeding sites. Migratory patterns are very differently affected at 200m compared to 125m.

>Are there any other relevant consultees who should be contacted with respect to the ecology assessment and scope of baseline information gathering?

Straiton Primary School. The present and future pupils of this rural school need to comment on the likely destruction of ornithological life in this area of the Upper Girvan valley. Straiton Environment Group has a particular interest in local ecology.

>Do consultees agree with the assessment and evaluation methodology proposed?

As this document seems to be a cut and paste from other Scoping Reports it is impossible to believe Statkraft are genuinely committed to carrying proper assessment and evaluation. Penalties should be built in to compensate for any ecological damage occurring during construction, operation and decommissioning.

6. Ecology

>Do consultees agree that the range of desk study and ecological surveys proposed is sufficient and proportionate to inform the design and assessment of the Proposed Development?

No. Much of the desk study and ecological surveys are pre-COVID 19 and out of date. Using evidence from Linfairn is not objective and equally not re-assuring as it received 6,500 objections. Is it too much to expect a highly qualified ecologist rather than simply a 'competent' one.

>Do consultees agree that the full range of likely effects to be assessed within the EIA Report has been adequately identified and is proportionate to the nature of the Proposed Development?

Very concerned about the way morbidity of badgers, otters, bats, water voles and red squirrel is dismissed. Evidence is discredited due to the impact of the pandemic e.g. increased sightings of red squirrels have been noted and the increasingly wet conditions have invasion by other species. Rewilding may be an option on the Knockcronal site.

Land-take comments vague, new waterway crossings vague, CEMP not in place!

Very concerned that in 6.6.5 it is accepted that significant residual effects could still remain.

>Are there any other consultees who should be contacted in respect to the ecology assessment and scope of baseline information gathering?

Straiton Environment Group, Straiton Primary School, Galloway National Park Association

>Do consultees agree with the assessment and evaluation methodology proposed?

No. It seems like a cut and paste exercise showing very little relationship with the actual site – a key landscape location at the upper course of the Girvan Water.

Relationship to Galloway Biosphere should be examined.

Impact on damaging National Park status should be examined.

7. Geology, Peat, Hydrology and Hydrogeology

> We would request advice from SEPA on the upper limiting depths for borrow pits restoration given the variable peat depths present across the site

THIS IS NOT A CONSULTATION QUESTION SO I AM ASSUMING IT IS AN ERROR DURING THE CUT AND PASTE EXERCISE

> Do consultees agree to the proposed methodology and scope of works?

No. I believe far more research should go into the damage which may be caused to fossil beds, areas of peatland and the natural and stunning dendritic drainage patterns visible in this area.

I also have great concerns about the impact on water quality and the resultant supplies to farms and residential areas. Changing the dendritic drainage patterns in this area can also have 'unintended consequences' leading to flooding and peat slides.

8. Noise

> Do the consultees agree that the baseline background noise survey results as presented in the baseline noise assessment are suitable and representative for the purposes of an assessment in accordance with ETSU R 97 and the IOA GPG?

No. These assessments seem to be adopted from LInfairn research which was never tested at the Planning Stage.

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

No. I have a number of concerns.

Firstly 200 metre turbines will have different noise issues than 125m, and this does not seem to have been tested. Secondly the cumulative effects of noise from Dersalloch, Knockcronal, Carrick and Craiginmoddie are a major concern. Thirdly wind directions will impact considerably on how noise will travel – no evidence of research into this. Fourthly the suggestion of quieter plant machinery is risible. Finally presumably the evidence that there is '...no evidence of health effects...from noise' does not include MENTAL HEALTH.

9. Cultural Heritage

> Do you agree that the proposal study areas are appropriate to the nature and scale of the Proposed Development?

No - the Outer Study area should be widened beyond 10km to 20km.

> If not, can you advise what you would consider to be appropriate in the specific circumstances, providing reasoning?

You cannot look at Knockcronal in isolation – visitors come to walk, cycle, visit cultural sites and go to Galloway Forest park. Their cultural experience will be adversely affected by 12 enormous turbines.

> Are there any specific designated heritage assets that are especially sensitive to change ...that require to be addressed through detailed assessment?

Yes. Blairquhan includes a castle, spectacular range of woodlands, Walled Garden, pond with flora and fauna, the Approach Loch a wonderfully serene area, The Linn, the Water of

Girvan – all sensitive to change. Knockcronal would also be seen at Straiton Church – a listed building and at various points within Straiton Conservation Area.

> Do you agree with the proposed scope of the assessment: assets to be included/excluded from assessment?

No. What do you mean by assets – very unclear.

>Do you agree with the potential impacts identified, or do you have any additional potential impacts that should also be considered?

No. What is post-scoping consultation? I have no faith in that proposal. Report acknowledges there will be many varied impacts.

> Do you agree with the proposed embedded mitigation and do you have any additional mitigation requirements not included in the proposals?

No. All sounds like fine words which will not have any legal standing e.g. WSI. Best way to minimise visual impact on Straiton Conservation Area is not to proceed. Insulting that no examples of mitigation to minimise visual impact on SVA are included – do they exist?

> Do you agree with the proposed visualisation viewpoints or do you have any alternative/additional requirements?

Far too limited – should be far more covering a 20km radius and certainly within the Outer Study area

10. Traffic and Transport

> That the proposed methodology is acceptable?

No. Very little awareness that most access roads go through CONSERVATION villages and that over the last 6 years road have badly damaged, verges have been ruined, buildings have been damaged by vibration and many residents have felt endangered.

What is the proposed route to take turbines from Glasgow docks to the site?

> That the methods proposed for obtaining traffic flow are acceptable?

No. Traffic flow has to be measured at commuter times and holiday times.

> That the use of National Road traffic Forecasts is acceptable for the whole of the study?

The roads around this site are already in a shocking condition. Ayrshire Roads Alliance which operates for South Ayrshire Council cannot cope with the level of carriageway damage caused by timber lorries, farm vehicles and construction vehicles.

> What developments should be included as committed developments within the baseline traffic flows in the assessment, noting that these should have planning consent at the time of scoping?

South Ayrshire Council intend to make the three conservation villages – Straiton, Crosshill and Kirkmichael 20mph zones within the next couple of years. This will be adversely affected by Wind Farm traffic.

> Details of any upgrades or network changes that may be undertaken to the study area network within the next five years?

See previous answer.

When the Dersalloch project was completed promises were not kept about reinstating roads, verges and bridges. The work took almost two years and was unfinished and substandard.

The proposed 150 abnormal loads will require major changes to local roads to allow movement of turbines. Cumulatively these abnormal loads will cause major disruption to traffic and the way of life in a rural environment.

11. Socio-economic & Tourism

> Do you agree with the proposed approach for the Socio-economics and Tourism assessment set out above?

No.

The opening statements ‘...it is not expected that there will be significant adverse socio-economic and tourism effects’ is insulting and I am sure will be met with an angry response from cafes, pubs, Straiton Village Cooperative, Balbeg Country Holidays, and many owners of holiday accommodation.

Tourists who like to visit conservation villages like Straiton will not enjoy travelling to Galloway Forest Park and passing 200m wind turbines which will dominate the landscape and it will be a turn off for visitors who want to enjoy hill walking, rambling, cycling and have an interest in the great outdoors – the flora, the fauna and the impressive landscape.

Specifically visitors to Blairquhan, the Monument, Straiton Church, Straiton Trails and Galloway Forest Park will have their experience adversely affected by enormous wind turbines.

The proposal is so unconcerned with the socio-economic impact they see no need for mitigation....

There is a suggestion that community benefit funding may be considered. Unfortunately Straiton villagers do not have a positive attitude towards these kind of schemes. Dersalloch, which is about 1-2km from Straiton, has a generous community benefit scheme managed by NCCBC (North Carrick Community Benefit Company). Unfortunately over the last 5 years this has benefited larger communities like Maybole which are barely affected by the Wind Farm, whereas Straiton which is adjacent to Dersalloch has had to argue strongly for even the smallest amounts of grant funding from NCCBC.

12. Aviation

> Are there any other relevant consultees who should be contacted in respect to the aviation.

Yes. There are a large number of helicopters use this area for the purpose of Scottish Water. Forestry and Land Scotland, Rescue situations and tourist trips from Trump Turnberry.

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

Yes.

13. Telecommunications and Television

No questions asked?? I believe there should be research carried out re these issues.

14. Shadow Flicker

> Do you agree with the study are outlined above?

No. In previous local Wind Farm responses it has been shown that shadow flicker is a real issue for residents within a certain proximity to the site area. There is considerable local expertise in this field and I would recommend the proposers contact Save Straiton for Scotland to access the most up to date evidence on this issue

> Do you agree to the above methodology to identify significant effects?

No. See above.

15. Forestry

> Do you agree that the forestry assessment will not assess effects, but be considered as an Appendix to Chapter 3 Proposed Development of the EIA Report?

No. Firstly I don't fully understand the question. However the acknowledgement that felling will be required increases the importance as there will be impacts on drainage, flora and fauna, habitats and infrastructure.

16. Carbon Calculator

> Do you agree with the above methodology for assessing carbon emissions and savings as a result of the Proposed Development?

Yes. I absolutely support the need for Green policies. My concern is the poorly chosen location for the Knockcronal/Linfairn scheme.

Statkraft should have investigated more carefully their decision to add Knockcronal/Linfairn to their portfolio of Green Energy projects. This kind of project would not be supported by communities in their own country – Norway.

Gordon Ferrie

Community Councillor, Crosshill, Straiton and Kirkmichael Community Council

18.02.2021

4.9 Scoping Questions to Consultees

Do you have any comments on the proposed approach and methodology?

The protocol is laid down by relevant planning authorities such as NatureScot and others, and these should be adhered to. This proposed development is on the site previously owned by Willowind and they put in an application in 2013. At that time it was deemed totally unsuitable for such development and with the increase in turbine height proposed this site is eminently inappropriate.

Are you in agreement with the proposed Study Areas?

Yes.

Are you in agreement that the assessment of the effects on landscape character receptors (except landscape planning designations) should focus on areas within a 20km radius?

Since you have acknowledged that the turbines will be visible from Arran it would point to a larger radius being required.

Do you have any comments or suggestions in relation to the Preliminary Representative Viewpoint Locations shown in Table 4.2 and illustrated on Figure 4.3?

The viewpoint locations should be chosen in consultation with parties involved in the process to assess the impact on sensitive landscapes and residences. Residents should be consulted. Without photomontage it is impossible to see what the impact on the viewpoint locations would be.

Do you have any comments on the landscape and visual effects of turbine lighting?

While it is welcome that the turbine lighting effects on the Dark Sky Park are to be considered the effects on properties in the area should also be taken into consideration.

Do you have any comments or suggestions on the approach to cumulative landscape and visual assessment?

Craiginmoddie Windfarm is now at application stage. You have not included Clauchrie which is now going to PLI or Knockdhar.

5.9 Scoping Questions to Consultees

Do consultees agree that the range of desk study and ecological surveys proposed is sufficient and proportionate to inform the design and assessment of the Proposed Development?

Loch Doon should be included as Statutory Designated Site with Ornithological Interest because of the ospreys breeding there.

Do consultees agree that the full range of likely effects to be assessed within the EIAR has been adequately identified and is proportionate to the nature of the Proposed Development?

What about migrating birds?

Are there any other relevant consultees who should be contacted with respect to the ecology assessment and scope of baseline information gathering?

It would appear that the only organisation consulted has been NatureScot. There are raptor groups in both Ayrshire and Dumfries and Galloway. Red kite have come into the area from Dumfries and Galloway.

Do consultees agree with the assessment and evaluation methodology proposed?

Seems to rely on limited on the ground surveys.

6.9 Questions to Consultees

Do consultees agree that the range of desk study and ecological surveys proposed is sufficient and proportionate to inform the design and assessment of the Proposed Development?

Not sure what you mean at 6.2.4 when you refer to “established local knowledge”.

Do consultees agree that the full range of likely effects to be assessed within the EIA Report has been adequately identified and is proportionate to the nature of the Proposed Development?

??

Are there any other relevant consultees who should be contacted with respect to the ecology assessment and scope of baseline information gathering?

??

Do consultees agree with the assessment and evaluation methodology proposed?

Would not be happy to rely on the Linfairn findings as they are now 8 years old.

7.9 Scoping Questions to Consultees We would request advice from SEPA on the upper limiting depths for borrow pit restoration given the variable peat depths present across the site.

Do consultees agree to the proposed methodology and scope of works?

Concern about pollution. **7.7.2** It is not acceptable that private water supplies could be affected throughout the life of the development.

How can you ensure that water quality will not be affected?

Should also be consulting with Ayrshire Rivers Trust and Straiton Angling Association.

8.9 Scoping Questions to Consultees Do consultees agree that the baseline background noise survey results (Appendix 8.1), as presented in the baseline noise assessment are suitable and representative for the purposes of an assessment in accordance with ETSU R 97 and the IOA GPG? Only 6 properties form the basis for your assessment. We know from experience that noise from turbines travels over long distances. Straiton is downwind of this site and the valley would act like a funnel for the noise. The prevailing wind is from that direction so noise is going to be a major factor. Do consultees agree with the proposed approach to the noise and vibration assessment as set out above?

No. You refer to aerodynamic noise and mechanical noise but not infrasound. Low frequency noise and infrasound cannot be scoped out. You state at 8.8.3 that there is no evidence of health effects arising from infrasound generated by wind turbines that were tested, citing a UK government report. However, it is well established that infrasound affects sleep and sleep disturbance over periods of time lead to health issues. Reports from Canada and Australia support this. I would point out as well that issues of infrasound/low frequency noise and vibration will be covered in a session at the PLI for Clauchrie Windfarm in May/June this year.

9.9 Scoping Questions to Consultees Do you agree that the proposed study areas are appropriate to the nature and scale of the Proposed Development? If not, can you advise what you would consider to be appropriate in the specific circumstances, providing reasoning?

Include Bargany as Designated Garden Landscape.

Are there any specific designated heritage assets that you consider have settings that are especially sensitive to change relative to the nature and scale of the Proposed Development that require to be addressed through detailed assessment?

Straiton Church and Churchyard. Blairquhan Castle and Designated Garden Landscape.

Do you agree with the proposed scope of the assessment: assets to be included/excluded from assessment?

Yes.

Do you agree with the potential impacts identified, or do you have any additional potential impacts that should also be considered?

Would expect to adhere to guidelines and legislation as laid down by relevant authorities.
Do you agree with the proposed embedded mitigation and do you have any additional mitigation requirements not included in the proposals?

??

Do you agree with the proposed visualisation viewpoints or do you have any alternative/additional requirements?

??

10.9 Scoping Questions to Consultees That the proposed methodology is acceptable?

That the methods proposed for obtaining traffic flow data are acceptable?

That the use of Low National Road Traffic Forecasts (NRTF) is acceptable for the whole of the study?
What developments should be included as committed developments within the baseline traffic flows in the assessment, noting that these should have planning consent at the time of scoping?

New housing adjacent to the B7023 Maybole.

Details of any upgrades or network changes that may be undertaken to the study area network within the next five years?

Find these questions are not useful at all. The traffic and transport section is by your own admittance not complete as this only takes the access as far as the B741 to east of Dailly.

From the A77 the route follows narrow country roads on which any increase in traffic is always a hazard. The number of HGV's needed for construction is going to take its toll on these roads which are less than satisfactory now.

11.8 Scoping Questions to Consultees Do you agree with the proposed approach for the Socio-economics and Tourism assessment set out above?

At 11.1.1 evidence that windfarms do not impact on tourism. What evidence?

Thin, almost non-existent. Refers to BIGGAR report which is now years out of date. 11.6.2 refers to community funding which is not part of the planning application and should not feature.

12.8 Scoping Questions to Consultees Are there any other relevant consultees who should be contacted in respect to the aviation assessment? Is the spatial extent of the aviation study area considered to be appropriate?

Just because low flying has decreased it does not mean that it has stopped altogether. This area is used for low flying practice. Depend on the expert consultees for this.

14.7 Scoping Questions to Consultees Do you agree with the study area outlined above? Do you agree to the above methodology to identify significant effects?

??

15.8 Scoping Questions to Consultees Do you agree that the forestry assessment will not assess effects, but be considered as an Appendix to Chapter 3 Proposed Development of the EIA Report?

No. Forestry has to have its own chapter otherwise it becomes lost in the detail of other considerations. At 15.2.2 reference to Ancient Woodland – this should not be disturbed.

Reference to felling but not to the effects on wildlife habitat. Any changes will disturb deer, badgers and birdlife as examples.

16.5 Questions for Consultees Do you agree with the above methodology for assessing carbon emissions and savings as a result of the Proposed Development?

At 16.4.1 you state that you will avoid areas of deep peat as far as possible. In chapter 7 point 7.2.8 you state that peat is occasionally present therefore it should be possible to avoid these areas altogether.

Re: Knockcronal Wind Farm Scoping Response

Steve O'Brien REDACTED

Tue 23/02/2021 07:47

To: John Haston REDACTED

Hi John

My comments on the report are brief.

Under section 4, I would like to suggest they add two more view points, these are on the B7023 at a point 200 metres north of Gartlea Farm. And on the Kirkmichael to Crosshill Road, just as it approaches Crosshill. I am in broad agreement with the suggestions in the rest of the report.

Regards

Steve

On 22 Feb 2021, at 23:47, John Haston REDACTED wrote:

I just wanted to check with everyone if there are any more individual response documents to collate and send to the energy consents unit. We had agreed on a deadline for today, so I will send what I have tomorrow morning.

Thanks to everyone who has sent me a response to the scoping document.

Kind regards

John Haston

Dailly Community Council - Consultation Response

KNOCKCRONAL WIND FARM - ECU00002181 SCOPING OPINION RESPONSE FROM DAILLY COMMUNITY COUNCIL

12 turbines at 200m to tip with on-site battery storage

The applicant

We note that Statkraft are skilled in Hydro as well as Wind Power.

Per 3.1.4 'a "Climate Emergency" was declared...' – this does not mean that there has to be a concentration on wind at the detriment of other renewables, ie Wave and Tidal.

Need

We do not understand the **need** for yet another windfarm development in this area. What is the rationale for using this particular location? Instead of using an optimal location such as the coastline, the developer is using a complex terrain which is influenced by for example topography, atmospheric conditions, and roughness. Turbulence and general wind conditions are harder to predict and modelling of wakes is more complicated, making energy yields more difficult to estimate. What is the estimated efficiency of these turbines?

This area of South West Scotland/South Ayrshire is already saturated with windfarms.

The Scottish Government is too focussed on wind power. We are led to believe that there should be a mix of Renewable Power Sources.

4.9 Landscape and Visual Scoping Questions to Consultees

Do you have any comments on the proposed approach and methodology?

➤ Are you in agreement with the proposed Study Areas?

Yes, though not all the potential windfarms have been included. There are already gaps in the Scoping Document – Knockodhar is not included. Fig 4.2 does not accurately show the extent or the actual numbers of turbines in the area. Though it does show that already the area is overcrowded with turbines.

As you are no doubt aware we are in the Buffer Zone of the Galloway and Southern Ayrshire Biosphere, and we feel that this should be taken into account.

➤ Are you in agreement that the assessment of the effects on landscape character receptors (except landscape planning designations) should focus on areas within a 20km radius?

No. All should be based on 45 km radius. Windfarms once built are there forever.

Point 4.5.8 – “The duration and reversibility of effects on views are based on the period over which the Proposed Development is likely to exist and *the extent to which the Proposed Development will be removed* and its effects reversed at the end of that period.” This does not sound very positive that the Development would be removed at the end of its life.

➤ **Do you have any comments or suggestions in relation to the Preliminary Representative Viewpoint Locations shown in Table 4.2 and illustrated on Figure 4.3?**

There are not enough. Hardly any viewpoints from the Western side of the Proposed Development – such as Wallacetown, and all along that ridge to Girvan and towards Crosshill. Viewpoints should be demonstrated without any obstructions, ie forestry, buildings, hedges.

We would much prefer seeing a proper physical 3D model. Wirelines and photomontages do not show accurately what will actually be visible and how it will feel.

The actual elevation of the land as an average is 300m, with the added height of the turbines at 200m, the overall height of these industrial turbines is overbearing in the landscape.

➤ **Do you have any comments on the landscape and visual effects of turbine lighting?**

Same as above. All viewpoints should include visuals for night-time turbine lighting as well as during daylight hours. With red lights on Nacelles and towers, there will be a strobe effect.

This will most definitely affect the Galloway Dark Sky Park, even though the Proposed Development is on the edge of the buffer zone.

➤ **Do you have any comments or suggestions on the approach to cumulative landscape and visual assessment?**

All of the proposed/scoped/operational and in construction windfarms must be included.

There must be safeguards regarding which and when (if any) of the proposed windfarms are approved. There are so many that are being proposed or in scoping that if all of them are approved then the landscape is totally overburdened.

No mention has been made of how generated power will be transmitted – will there have to be another interconnector built? Will there be more power lines? These should also be included in the whole EIA documentation. We are only being presented with a partial Proposed Development.

What does decommissioning actually mean in this particular document?

“4.5.6 The significance of effects is assessed through a combination of two considerations: the sensitivity of the landscape receptor or view and the magnitude

of change that would result from the addition of the Proposed Development.” – this is all very subjective.

Cumulatively the landscape has already been significantly scarred by the number of windfarms and turbines already erected and operational. This of course brings about the consequential decrease in property value (which nobody wants to talk about).

5.9 Ornithological Scoping questions

Do not understand why those listed below are not scoped in:

Red-listed birds of conservation concern – operation (should be scoped in)

Habitat loss, fragmentation or change – construction and decommissioning (should be scoped in)

Disturbance to and loss of nest sites, eggs and/or dependent young - operation (should be scoped in)

Mortality due to collision – construction, operation, decommissioning (should be scoped in)

7.9 Geology, Peat, Hydrology & Hydrogeology Scoping Questions to Consultees

- We would request advice from SEPA on the upper limiting depths for borrow pit restoration given the variable peat depths present across the site.
- Do consultees agree to the proposed methodology and scope of works?

7.2.1 Noted that the Catchment runs entirely into Water of Girvan – there is huge potential for contamination, disruption and destruction.

7.7.2. These impacts could potentially affect water users (private water supplies for domestic use, livestock or irrigation), fisheries or aquatic habitats and the status of water bodies throughout the life of the Proposed Development. PWS must be protected.

8.9 Noise Scoping Questions to Consultees

- **Do consultees agree that the baseline background noise survey results (Appendix 8.1), as presented in the baseline noise assessment are suitable and representative for the purposes of an assessment in accordance with ETSU R 97 and the IOA GPG?**

Referencing guidance and legislation from 1988 to 2014 – there are more up-to-date studies.

Size of study area should be increased. For example, residents of Dailly/Wallacetown hear noise from Hadyard Hill even though kilometers away from the actual site.

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

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

What is the proof that there is no GBV – should **not** be scoped out

8.8.2 Noise associated with the operation of the substation and routine maintenance visits and operational traffic is **likely** to be negligible, and therefore will be scoped out of the noise impact assessment.

These should be **scoped in** – we do not know what the noise level will be from the substation.

8.8.3 Due to advances in turbine design, low frequency noise and vibration from turbines has been reduced. The Scottish Government references a report for the UK Government and concerning Low Frequency Noise that notes: “...*there is no evidence of health effects arising from infrasound or low frequency noise generated by wind turbines that were tested.*” Therefore, it is proposed that low frequency noise is scoped out from the impact assessment.

Do not agree – this should be **scoped in**. There have been advancements in LFN studies, and is a very contentious and subjective subject.

Cumulative Impact from operational sites Hadyard Hill and Dersalloch, and others in process of being built/in scoping or consultation should also be included in noise assessment.

The noise surveys were carried out November 2017 to January 2018 – has anything in the locale changed to influence these baseline surveys.

9.9 Cultural Heritage Scoping Questions to Consultees

9.5.8. Category C Listed buildings within the blade tip height **ZTV and within km** of the outermost turbines will be included in the assessment.

How many KM??

Do not understand why ‘Effects on the settings of heritage assets within or outwith the Outer Study Area’ are scoped out, for construction, **they should be scoped in; and scoped in for** operational for ‘Effects on the settings of heritage assets outwith the Outer Study Area’.

10.9 Traffic and Transport Scoping Questions to Consultees

10.5.8 It is not anticipated that a formal Transport Assessment will be required as these are not generally considered necessary for temporary construction works. A reduced scope Transport Assessment is therefore proposed.

Do not agree that this is a temporary construction works – work will be on-going for a number of years.

10.5.9 Each turbine is likely to require between 11 and 14 abnormal loads to deliver the components to site. The components will be delivered on extendable trailers which will then be retracted to the size of a standard HGV for the return journey.

Would suggest that the roads in the immediate site area are not appropriate for the size of AIL / HGVs that would be used to bring in these sizes of turbine blades. How many HGV journeys are anticipated for hardcore/cement/other infrastructure/storage, etc for the whole site? Not forgetting that there will be a battery for each turbine – understand these are basically the size of a 40ft container.

10.5.10 Detailed swept path analysis will be undertaken for the main constraint points on the route from the port of entry through to the site access junction to demonstrate that the turbine components can be delivered to site and to identify any temporary road works which may be necessary.

From experience – roads/lanes/verges totally destroyed, and not reinstated to any degree of satisfaction. These roads are not meant to carry such heavy loads, and the foundations become weak and eventually become totally potholed/cracked/gullies and ditches not working properly.

10.8.4 **Do not agree** that the decommissioning of all the receptors and impacts are scoped out, they **should be scoped in** as there is still going to be the same element of disturbance as when carrying out construction.

- **What developments should be included as committed developments within the baseline traffic flows in the assessment, noting that these should have planning consent at the time of scoping?**

Obviously that depends at the time, but Carrick and Craiginmoddie in the first instance.

11.8 Socio-economics & Tourism Scoping Questions to Consultees

- **Do you agree with the proposed approach for the Socio-economics and Tourism assessment**

11.1.1 Based on the available evidence from similar developments, in south-west Scotland and elsewhere, it is not expected that there will be significant adverse socio-economics and tourism effects.

11.1.2 Whilst the expected socio-economic effects could be important to the local economy and communities and would be consistent with national and local economic development priorities, the scale of the effects is unlikely to be significant in EIA terms and would be beneficial, not adverse.

11.1.3 Research on the effects of onshore wind farm development on tourism suggest that there is no link between the two and therefore significant adverse effects on the tourism economy are not expected.

11.1.4 Nevertheless, it is recognised that an understanding of potential socio-economic and tourism effects can be useful and so it is proposed to include a socio-economics and tourism assessment in the EIA Report. Whilst this assessment will consider whether there is potential for adverse effects, including on the tourism economy, it is expected that it will focus on potential socio-economic benefits arising from the Proposed Development.

The above statements are inaccurate and misleading, and shows how Windfarm Companies make incorrect assumptions about a rural area.

Should be **scoped in**: Temporary effects on the regional and national economy during decommissioning, and Effects on tourism, routes and local accommodation during decommissioning.

13 Telecommunications and Television

If there are issues with either Telecoms or TV there should be restitution made, and this **should be incorporated as per 13.2.4**‘could be conditioned in any consent granted’.

14.7 Shadow Flicker Scoping Questions to Consultees

- Do you agree with the study area outlined above?
- Do you agree to the above methodology to identify significant effects?

14.2.1 and 14.2.1 paragraphs and

14.3.2 As detailed above the shadow flicker study area includes the area within a distance of 10 times the rotor diameter and 130 degrees either side of north for each turbine.

We **do not agree** that the distance of 10 times rotor diameter is sufficient. From experiences of local residents this is not enough.

14.4.1 ‘.....on the potential shadow flicker occurrence for a 1 m x 1 m ground floor window at each identified sensitive receptor location, assumed to be facing directly towards the Proposed Development.’

Do not agree that a 1m x 1m ground floor window is appropriate. Windows not facing directly towards a development still receive impact of shadow flicker, as do skylights. Reflections can also occur from other roofs and buildings in close proximity. Shadow flicker also occurs outside – residents also receive shadow flicker impact even when they are sitting in their garden, or when they are approaching their own property.

14.4.3 ‘ Where required, potential mitigation measures will be discussed.’
There is no indication of what potential mitigation could be under 14.4.4. **Please elaborate and with whom you will be discussing.**

Marine Scotland Science advice on freshwater and diadromous fish and fisheries in relation to onshore wind farm developments.

July 2020

Marine Scotland Science (MSS) 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 MSS 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. MSS 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 MSS, 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, MSS 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, MSS 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.

MSS 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.

MSS provision of advice to ECU

- MSS should not be asked for advice on pre application and application consultations (including screening, scoping, gate checks and EIA applications). Instead, the MSS 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, MSS 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, MSS can be asked to provide advice on suitable wording, within a planning condition, to secure proposed monitoring programmes, should the development be granted consent;
- MSS 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, MSS should be contacted.

MSS Standing Advice for each stage of the EIA process

Scoping

MSS 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 MSS generic scoping guidelines then ECU should be informed who will then co-ordinate a response from MSS.

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

MSS 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

MSS 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.

MSS 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

MSS 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 MSS is consulted on these programmes.

Wording suggested by MSS 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 Scotland Science and any such other advisors or organisations.
2. The WQFMP must take account of the Scottish Government's Marine Scotland Science's 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 Marine Scotland Science.
3. Thereafter, the WQFMP shall be implemented within the timescales set out to the satisfaction of the Planning Authority in consultation with Marine Scotland Science 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

Scottish Natural Heritage (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, SNH, SEPA, Forestry Commission Scotland, Historic Environment Scotland, MSS 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>.

Marine Scotland Science advice on freshwater and diadromous fish and fisheries in relation to onshore wind farm developments.

July 2020

Annex 1

MSS – 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:

MSS 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 MSS advice, please set out reasons.
1. A map outlining the proposed development area and the proposed location of: <ul style="list-style-type: none"> ○ the turbines, ○ associated crane hard standing areas, ○ borrow pits, ○ permanent meteorological masts, ○ access tracks including watercourse crossings, ○ all buildings including substation, battery storage; 			

<ul style="list-style-type: none"> ○ permanent and temporary construction compounds; ○ all watercourses; and ○ contour lines; 			
<p>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;</p>			
<p>3. An outline of the potential impacts on fish populations and water quality within and downstream of the proposed development area;</p>			
<p>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;</p>			
<p>5. Any proposed site specific mitigation measures as outlined in MSS generic scoping guidelines and the joint publication “Good Practice</p>			

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 MSS and accompanied by a map outlining the proposed sampling and control sites in addition to the location of all turbines and associated infrastructure			
7. A decommissioning and restoration plan outlining proposed mitigation/monitoring for water quality and fish populations.			

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 MSS advice, please set out reasons.
1. Any designated area, 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.			