



**REPORT BY PLACE DIRECTORATE**  
**REGULATORY PANEL: 23 JUNE 2022**

<b>SUBJECT:</b>	<b>CONSULTATION UNDER SECTION 36 OF THE ELECTRICITY ACT 1989</b>  <b>APPLICATION UNDER SECTION 36 OF ELECTRICITY ACT 1989 (AS AMENDED) FOR CONSTRUCTION AND OPERATION OF CARRICK WIND FARM COMPRISING UP TO 13 TURBINES UP TO 200 METERS TO BLADE TIP (WITH GENERATING CAPACITY OF CIRCA 86MW) AND PROPOSED ENERGY STORAGE FACILITY (CIRCA 20MW CAPACITY) AND ASSOCIATED INFRASTRUCTURE</b>
<b>REFERENCE:</b>	<b>22/00094/DEEM</b>

**1. Purpose of Report**

- 1.1 South Ayrshire Council has been consulted by the Scottish Government, under section 36 of the Electricity Act 1989, on an application by Scottish Power Renewables UK Ltd for the erection of a windfarm and associated ancillary development at Carrick Wind Farm, Carrick Forest, South Ayrshire.
- 1.2 The Council is not the determining authority for this proposal. This report sets out the proposed response to the Scottish Government's consultation which was issued on the 25 January 2022.
- 1.3 The Planning Service currently has delegated authority to respond to these consultations, but typically chooses not to do so without first referring the matter to Regulatory Panel due to the large scale of the proposals and the community interest.
- 1.4 The applicant has agreed to a time extension to 30 June 2022 for the Council to make its response. It is imperative that the Council responds within the agreed time period, or its statutory rights would be affected.
- 1.5 Under the Electricity Act 1989, Schedule 8, part 2, paragraph 2 (a), where the relevant Planning Authority notifies the Scottish Ministers that they object to the application and their objection is not withdrawn, the Scottish Ministers shall cause a public inquiry to be held.

- 1.6 Under the Electricity Act 1989 schedule 8, part 2, paragraph (3) if the Planning Authority notifies the Scottish Ministers outwith the time limit that has been agreed (i.e., 30 June 2022 in this case), then the Scottish Ministers may disregard the notification to object.
- 1.7 On the basis that a Planning Authority were not to respond by the agreed date then there is no mandatory requirement for a public inquiry to be held.

## 2. Recommendation

**It is recommended that the Regulatory Panel:**

- **submits this report to the Scottish Government as an *objection* to the proposed wind farm**
- **approves delegated authority to the Director of Place to conclude planning conditions with the Energy Consents Unit should the Scottish Government be minded to grant consent.**

## 3. Background & Procedural Matters

- 3.1 On 23 December 2021, Scottish Power Renewables UK Limited submitted to the Scottish Government a Section 36 application together with an application that planning permission be deemed to be granted in respect of the construction and operation of a windfarm comprising up to 13 turbines with an anticipated height at tip of 200m located within the Carrick Forest, approximately 6km south of Straiton. Under Section 36 of the Electricity Act 1989, the construction of a generating station with a capacity which exceeds 50 MW requires the consent of Scottish Ministers.
- 3.2 The Scottish Government formally consulted the Council on the proposed development on 25 January 2022, with an original deadline for response on the application of 27 May 2022. The Planning Service made a request for the time period to respond to be extended to 30 June 2022.
- 3.3 The proposed development constitutes a Schedule 2 development as classified by the Electricity Works (EIA) (Scotland) Regulations 2017 and the application is supported with an Environmental Impact Assessment Report.
- 3.4 Under the Electricity Works (Environment Impact Assessment) (Scotland) Regulations 2017, Scottish Ministers are required to consider whether any proposal for a generating station is likely to have a significant effect on the environment. These Regulations stipulate that Scottish Ministers must consult the planning authority, Scottish Natural Heritage, Scottish Environment Protection Agency, and Historic Environment Scotland.
- 3.5 In reaching their decision, Scottish Ministers have to take into account the environmental information submitted with the application and supporting Environmental Impact Assessment, the representations made by statutory consultative bodies and others in accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, Scottish Planning Policy on Renewable Energy, other relevant Policy, Planning Advice Notes, the relevant planning authority's Development Plans and any relevant supplementary guidance.
- 3.6 The connection of the wind farm with the local electricity distribution network would require consent under Section 37 of the Electricity Act 1989. This would be subject to a separate consultation in due course.

## 4. Development Proposal

4.1 The proposed development comprises of up to 13 wind turbines. Each turbine would be a three bladed horizontal axis type machine with a generating capacity of circa 6.6MW and a maximum blade tip height of 200m. Combined, the wind turbines would have an installed generating capacity of 86MW. The proposals include an energy storage facility (battery) with a capacity of circa 20MW. The full package of development proposals include:

- Up to 13 wind turbines
- Wind turbine foundations (30m X 30m/860m<sup>3</sup>)
- Crane hardstanding and laydown areas (34m X 94m)
- Transformers/switchgear housing located adjacent to wind turbines
- 16.2km of access tracks (upgrade of existing and new tracks with a nominal width of 5.5m)
- Watercourse crossings (upgrading of 5 existing crossings and 2 new crossings in the form of circular culverts. Open-bottom arch culverts or circular culverts proposed across existing, unmapped watercourses - required during track construction)
- Underground cabling linking turbines to substation (following route of access tracks)
- Communication mast
- CCTV masts
- Up to four borrow pit search areas
- LIDAR compound (a means of measuring wind speeds)
- Substation compound and associated storage infrastructure (189m X 126m)
- Two temporary Scottish Power Renewables construction compound areas (100m X 100m and 30m X 30m)
- One temporary Scottish Power Energy Networks construction compound (60m X 60m)
- Restoration of 28ha of bog (through commercial forest removal)

4.2 It is proposed that the northern temporary SPR construction compound be retained and used as a permanent car park for recreational users upon completion of the construction phase.

4.3 The applicant is seeking permission in perpetuity for the wind farm. The anticipated operational life is 40 years.

4.4 The site is located within a commercial forest plantation (Carrick Forest) located circa 6km to the south of Straiton. The site covers an area of approximately 827 hectares and the land use is predominantly commercial forestry with some areas of cleared plantation. The site forms part of the upland plateau area within the range of foothills between the Stinchar Valley and the Water of Girvan Valley that extend from Ballantrae to Straiton. The site lies at an altitude of between 243 and 430 metres above ordnance datum (AOD). The highest point is Garleffin Fell, the summit of which lies within the western part of the site. There are no residential properties within the site, however, there are 5 houses within 2 km of the nearest wind turbine, the closest of which is 1.04km from the nearest turbine. The land cover is predominantly commercial conifer plantation with blanket peat and other peaty soils present throughout the site. Peat is notable in open areas, such as forest rides, clearings and in the vicinity of surface water bodies. The depth of peat varies across the site and the average peat depth is 0.99m. Trees will be permanently cleared around the base of each turbine and from an area to be used as a habitat management area resulting in the loss of 97.42ha. A further 126ha of productive conifer plantation will be subject to advanced felling and replanting. Four borrow pit search areas are proposed.

- 4.5 The site is located immediately to the south of the proposed Knockcronal Wind Farm which comprises nine turbines with a maximum blade tip height of 200m (application stage). The current proposal and Knockcronal occupy the same upland plateau. The proposed Craiginmoddie wind farm lies approximately 1.5km to the west, also within the same upland area as the proposed wind farm. Members will recall their decision to object to the Craiginmoddie Wind Farm at the Regulatory Panel meeting held on 3 February 2022. To the west of the proposed Craiginmoddie wind farm is the operation Hadyard Hill wind farm and further west of that is the operational Assell Valley wind farm. Taken together, these developments would form a grouping of wind turbines within the upland area between Pinmore in the south and Straiton in the north.
- 4.6 It is proposed that the wind turbines will be delivered from the King George V Dock in Glasgow. The wind turbines would be transported from Glasgow via the M8 before being moved south along the M74/M6 to the A75 and U52w, then on the A714 where they would travel north and onto the C1. Two separate access points are proposed off the C1 to the south of the property "Tallaminnoch" which will utilise existing forest tracks. The access tracks within the site will run from the eastern entrances and connect all wind turbine locations. Approximately 7.4km of new access tracks would be constructed and approximately 8.6km of existing forestry track would be upgraded. Five existing watercourse crossings may require to be upgraded and two new crossings would be required. All water crossings will take the form of a circular culvert. Numerous unmapped minor water courses would also require to be spanned during track construction and these would be formed as open-bottom arch culverts or circular culverts.

## 5. Consultations

- 5.1 Consultations on this application are undertaken by the Scottish Government. Comments arising from consultation within South Ayrshire Council (department services) are incorporated into the assessment section of this report and will be forwarded to the ECU. The following consultation responses are for noting only.

### 5.2 Statutory Consultees

- 5.2.1 SEPA: - **Holding Objection** pending submission of further information to demonstrate excavation of deep peat has been minimised.
- 5.2.2 Nature Scot: - **Object on the grounds of significant adverse impact on the Merrick Wild Land Area**
- 5.2.3 NATS Safeguarding: - **object** to the proposals noting that the development is likely to cause false primary plots to be generated at the Lowther Hill radar. A reduction in the radar's probability of detection for real aircraft is also anticipated.
- 5.2.4 Historic Environment Scotland: - do not object.
- 5.2.5 Scottish Water: - have no objection
- 5.2.6 Dumfries & Galloway Council: - no comments
- 5.2.7 Neighbouring East Ayrshire Council: - do not object but request consideration of the cumulative impact on the Merrick Wild Land Area resulting from the current proposal and adjoining proposals. EAC also request that they be notified of any change to the proposed aircraft activated aviation lighting scheme, should the objections raised by the aviation industry be sustained.

### 5.3 Internal Scottish Government Advisers

- 5.3.1 Scottish Forestry: - Do not object but note that 97.2 ha of woodland will be permanently lost due to the construction of the wind farm. To comply with the Scottish Government's Control of Woodland Removal Policy, the woodland loss must be compensated by planting an equivalent area of woodland elsewhere. This is recognised in the EIA however the location of the compensatory planting has not been identified. The developer would require to plant 97.2 ha of productive woodland. There is a requirement for a minimum of 10% open ground and 5% native broadleaf species. The total requirement for compensatory planting will therefore be greater than the net woodland loss.
- 5.3.2 Ironside Farrar (Peat Slide Risk Assessment): - no response at the time of writing.
- 5.3.3 Transport Scotland: - Have no objection in terms of the impact on the trunk road network, subject to conditions concerning approval of the abnormal load route and related signage.
- 5.3.4 Crown Estate: - no response at the time of writing.
- 5.3.5 Visit Scotland: - do not object but request that the impact of the development on tourism be assessed through a tourism impact assessment

### 5.4 Non-Statutory Consultees

- 5.4.1 ScotWays: - **Holding Objection.** Note that the position of Turbine 6 is close to Right of Way SKC7 and that the proposed turbine access track appears to follow the route of the Right of Way. ScotWays advised at the pre-application stage that the turbines are set back 200m (blade tip height) from the rights of way and Core Paths that traverse the site. However, the scale of mapping provided is insufficient to allow measurement of the separation distances and additional information is requested in this regard.
- 5.4.2 Galloway & Southern Ayrshire Biosphere Partnership Board: - **object** on the grounds of landscape and visual effects on the core and buffer area of the UNESCO Biosphere and the consequential adverse effect on local tourism and sense of place.
- 5.4.3 Glasgow Prestwick Airport: - **object** on the grounds of potential adverse effects both as a consequence of the proposed Carrick Wind Farm and other operational, consented, and proposed wind farms within the vicinity of Carrick, on the airport's primary surveillance radar, secondary surveillance radar and the VHF/UHF Communications Equipment. The Airport also notes the operational risks associated with the proposed aviation lighting mitigation plan which requires an Aircraft Detection Lighting Scheme that is dependent upon Electronic Conspicuity.
- 5.4.4 Glasgow Airport: - do not object.
- 5.4.5 RSPB: - do not object and support the proposed osprey monitoring programme to validate the collision risk assessment in the EIA. RSPB also support the proposed peatland restoration.
- 5.4.6 Saving Scotland's Red Squirrels: - do not object
- 5.4.7 Ayrshire Rivers Trust: - do not object subject to conditions regarding water crossings, CEMP, and protection of water voles.
- 5.4.8 Joint Radio Company: - do not object

- 5.4.9 South Ayrshire Council Environmental Health: - do not object subject to conditions
- 5.4.10 West of Scotland Archaeology Service: - do not object subject to conditions
- 5.4.11 British Horse Society: - do not object.
- 5.4.12 OFCOM: - do not object
- 5.4.13 Coal Authority: - do not object
- 5.4.14 Mountaineering Scotland: - do not object
- 5.4.15 British Telecom: - do not object
- 5.4.16 Defence Infrastructure Organisation: - do not object subject to conditions requiring an aviation lighting scheme and submission of the 'as-built' turbine coordinates.
- 5.4.17 Ayrshire Roads Alliance: - no objections subject to conditions.

## 5.5 Community Councils

- 5.5.1 Barr Community Council: - **object** on the grounds of insufficient community engagement and the natural environment, particularly in relation to the cumulative effects of all existing, proposed, and potential wind farms and other large-scale changes locally and regionally. In terms of detail, the community council note that the aviation safety lighting will impact on the Galloway Dark Skies Park and the sense of isolation experienced within the Merrick Wild Land Area. The CC do not accept the conclusion in the Socio-Economic assessment in the EIA that the effect of the development on tourism will be negligible. The CC consider that the conclusions of the EIA in relation to Residential Visual Amenity and Landscape Impact are disputable. The CC note that access to the Carrick Hills is one of the benefits of living in South Ayrshire and the development, in combination with other wind farms will reduce the untouched character of the terrain as wind farms have extended out to form a near continuous chain across the Ayrshire Hills. The CC consider that the impact on walkers is under-estimated as it does not consider the complete walking experience. There is no evidence of a cumulative assessment of the impact of wind farm development and other large-scale land use developments (such as large-scale afforestation) on the water environment.

## 6. Applicant's Supporting Information

- 6.1 **Environmental Impact Assessment Report:** Presents the findings of the Environmental Impact Assessment carried out in accordance with the Electricity Works (EIA) (Scotland) Regulations 2017. The EIA Report (hereafter referred to as EIAR) describes the existing environmental conditions to identify sensitive assets or features and the methods used to assess whether environmental effects either beneficial or adverse are predicted due to the construction and operation of the development. Where appropriate it also sets out mitigation measures designed to prevent, reduce and if possible, offset any significant adverse environmental effects. Following consideration of mitigation measures, any remaining residual effects are also presented. The EIAR also presents an assessment of the cumulative effects that may occur in combination with other developments. No significant residual effects are predicted for most environmental topics with the exception of potential landscape & visual and cultural heritage effects. The significant effects on landscape character and visual amenity would be relatively contained to within 6km. The surrounding upland landscape and foothills will help screen distant views of the proposed development from areas such as the Galloway Forest Park and the Merrick Wild Land Area. The setting of one schedule monument is predicted to be adversely impacted. The residual adverse effects are balanced by the climate change benefits of generating renewable electricity. In addition, the applicant is committed to providing community benefits and exploring opportunities to provide enhancements as part of the development.
- 6.2 **Carbon Balance Assessment (appendix 15.5):** Presents the outcome of an assessment of the likely carbon savings resulting from the development of the wind farm using Nature Scotland's Carbon Calculator tool. The assessment assumes that the renewable energy produced by the development will replace electrical energy generated by fossil fuel plants, thus reducing the volume of CO<sub>2</sub> emissions resulting from conventional electrical power generation. At the same time, it is recognised that the construction, operation and decommissioning of wind farms results in emissions of carbon dioxide and there is therefore a balance between emissions saved and emissions generated. The estimation of CO<sub>2</sub> emissions includes those arising from the direct loss and drying out of peat soils (because of land drainage). Further losses resulting from the permanent removal of woodland have been included. The emissions of CO<sub>2</sub> are balanced against improved carbon sequestration resulting from the proposed bog restoration on the site of the cleared plantation woodland and the restoration of peat following the decommissioning of the windfarm. The carbon calculator predicts that the proposed development will 'pay back' the carbon emissions associated with its construction, operation and decommissioning in 3.5 years. Assuming a 40-year wind farm life, this equates to an overall carbon saving of 11 times the carbon emitted.
- 6.3 **Soil and Peat Management Plan (appendix 6.2):** The report examines the volume of soil and peat likely to be excavated during the construction process and the potential for minimising excavation and identifying volumes for re-use. All of the excavated soil and peat will be reused within the site. Approximately two thirds of the soil and peat are to be used in the reinstatement of the borrow pits, with the balance being used to form verges along the access tracks and to reinstate the temporary hard standings such as the crane pads. Should not all the borrow pit search areas be utilised, the depth of peat could be increased. Furthermore, up to 16,500 m<sup>3</sup> of any excess peat could be used to restore two existing borrow pits within the site. The soil and peat management plan identifies opportunities to minimise the volume of soils and peat excavated through careful micro-siting of infrastructure to avoid deeper areas of peat. The proposed Construction Environmental Management Plan will detail locations for temporary storage and an outline programme indicating the duration and quantity of stored peat and measures to mitigate both the time and volume of temporary storage and to prevent sedimentation of any watercourse or waterbody. Where practical, excavated peat would be immediately be used locally for reinstatement and/or landscaping. Soil mounds and excavation depths would not exceed 2.0 metres.

- 6.4 **Peat Landslide Hazard and Risk Assessment (appendix 6.1)** presents the findings of a peat landslide hazard risk assessment which follows the Scottish Government best practice guidance for identifying, mitigating, and managing peat landslide hazards and their associated risks. The study concludes that there are no areas within the site with a risk greater than “low risk” and the majority of the site was evaluated as “negligible risk” or no peat. Further geotechnical investigation is proposed as part of the site investigations, which would take place prior to construction and inform the detailed design of the development, along with detailed mitigation.
- 6.5 **Outline Habitat Management Plan (appendix 7.6)** The Outline Habitat Management Plan defines the aims and objectives of the land management that will be implemented on site to achieve the purpose of mitigating the adverse impacts that the windfarm may have had, particularly in relation to peatland. The measures include restoration of an area of degraded peatland following permanent forest clearance works. The work includes removal of any conifer regeneration and measures to raise the water table, including wave damming. The plan also includes a methodology and prescriptions for habitat management measures, details of regular monitoring using fixed quadrat locations and contingency measures should monitoring reveal unfavourable results.
- 6.6 **Bat Mitigation and Monitoring Plan (appendix 7.4)** Describes the mitigation measures, method of implementation, auditing and monitoring programme which would be implemented during the operational phase of the development to reduce the risk to bats.
- 6.7 **Planning Statement:** The statement covers the benefits of the scheme, the legislative regime, energy policy, national policy, environmental considerations, and the Development Plan. In support of the proposal, the Statement refers to the First Minister’s Climate Emergency declaration in April 2019, the legally binding emissions reductions targets established through the Climate Change (Emission Reduction Targets) Scotland Act 2019, the support for significant additional renewable energy generation contained in the Energy White Paper 2020 and the updated Climate Change Plan published in December 2020. More specifically, the Statement refers to the Onshore Wind Policy Statement (OWPS) Refresh 2021 and the commitment to securing an additional 8-12 GW of installed onshore wind capacity by 2030. The Statement refers to the Europe wide shift towards taller wind turbines and identifies the benefits of using fewer more efficient machines including less land-take and potentially less peat disturbance, less concrete and less tree removal. The applicant’s view is that the OWPS supports the use of fewer larger wind turbines, as proposed under the current application. It is stated that the applicant has upheld their obligations under Schedule 9 of the Electricity Act 1989 to have regard to the desirability of preserving natural beauty, conserving listed natural heritage interests, protecting sites, buildings, and objects of architectural or historic interest and impact on fisheries and fish stocks. The design of the proposed development has evolved through an iterative process that has reduced or otherwise mitigated the likely significant adverse effects. The EIAR concludes that the predicted environmental effects are not significant other than that relating to localised (within 6 km) landscape and visual effects and a significant effect on the setting of one heritage asset. The Statement refers to the need to balance, within the Planning system, the adverse effects of a development proposal with the benefits. In support of the proposal the Statement highlights that the predicted effects will not be experienced within any international or national designations such as National Parks or National Scenic Areas and states that the site is within an area which is suitable for wind farms in the context of Scottish planning policy. The EIAR further concludes that the urgent need for renewable energy developments, the benefits of the development will bring in terms of meeting net-zero targets and investments it will bring into the green economy, the significant effects are considered to be acceptable and outweigh any adverse impacts.



- 6.8 **Outline Construction Environmental Management Plan:** Sets out the typical contents for a site Construction Environmental Management Plan. The document would establish who is responsible for each aspect of the management of the construction process to ensure protection of the natural environment. Typically, this would cover surface water management; oil and chemical delivery and storage; wastewater and water supply monitoring and control; waste and resource management; traffic and transport, air, noise, land management including archaeology, flora, and fauna; environmental incident response and method statements & risk assessments.

## 7. Planning History

- 7.1 There are no previous planning applications or Section 36 wind farm proposals within the site boundary.
- 7.2 The land immediately adjacent to the northern site boundary is the subject of a current consultation under Section 36 of the Electricity Act for Knockcronal Wind Farm (Council reference 21/00993/DEEM) and a previous Section 36 consultation for the proposed Linfairn wind farm (13/01130/DEEM). The current Knockcronal application is for 9 turbines up to 200m to blade tip. The former, which related to a larger site area, was comprised of 17 turbines with a maximum blade tip height of 126.5 metres. The Council raised an objection however the application was withdrawn.

## 8. Development Plan

- 8.1 The proposed development has been submitted under the Electricity Act and the statutory requirement under Section 25 of the Planning Act (decisions to be made in accordance with the development plan unless material considerations indicate otherwise) does not apply in this instance. However, the Local Development Plan is a significant material consideration.
- 8.2 Members should note that the Scottish Government Department of Planning and Environmental Appeals Division (DPEA) concluded its Examination of the South Ayrshire Modified Proposed Local Development Plan 2 (MPLDP 2 but referred to as LDP 2) and issued its Examination Report on 10th January 2022. At a meeting on 10th March 2022, South Ayrshire Council considered and agreed to accept Modifications, as recommended by the DPEA. At the same meeting, the Council agreed to submit the Plan (including those recommended modifications) to Scottish Ministers as the Local Development Plan that it intends to adopt. LDP 2 now forms a substantial material consideration in the determination of planning applications. The applicable policies in MPLDP2 are not materially different to those of the existing LDP. Supplementary Guidance: Wind Energy, remains relevant, with its windfarm spatial framework having been incorporated into MPLDP2, and the SG is likely to be re-adopted in similar form under the adopted LDP2.
- 8.3 The South Ayrshire Local Development Plan policy: wind energy is the primary local plan policy against which proposals for wind farm development are to be assessed. The LDP has several additional policies of relevance to the assessment of the planning application, which relate closely to the criteria of the wind energy policy. For ease of reference, they are listed beneath the corresponding criterion of the wind energy policy in the subsequent sections of this report.

- 8.4 Whilst the policy provides the basis for assessing wind energy developments, South Ayrshire Council adopted the Supplementary Guidance (SG) it refers to, in December 2015. That SG provides detail by which wind energy proposals can be fully assessed. It provides a spatial strategy for wind energy, in line with the requirements of Scottish Planning Policy (and in so doing identifies areas within South Ayrshire which are afforded significant national protection) and it provides guidance on how the policy of the Local Development Plan will be applied in the consideration of proposals.
- 8.5 The SG identifies the current site as being within an area of “significant protection” by reason of the area being a location where carbon rich soils, deep peat and priority peatland habitat exist. The SG follows the principles of Scottish Planning Policy (SPP) by stating that in such circumstances, further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design, or other mitigation. This specific matter is considered in more detail in the Assessment section of this report.
- 8.6 The SG covers the following issues:
- Impacts on landscape and landscape character
  - Visual impacts
  - Residential amenity, (noise, shadow flicker, visual impact, and traffic)
  - Natural heritage including national and locally protected species and habitats
  - Impacts on the historic environment and archaeology
  - Aviation, defence, and broadcasting interests
  - Cumulative impacts
  - Environmental management
  - Hydrology and the water environment
  - Borrow pits
  - Carbon losses
  - Flooding
  - Decommissioning and restoration bond obligations
  - Repowering
  - Extensions
  - Monitoring
- 8.7 Each of the above sections includes a reference to the Council’s policy on these issues and the matters which will be considered in the assessment of the proposals.

## 9. Assessment

- 9.1 In assessing the proposal, it is important to note that South Ayrshire Council is not the determining authority and has been asked to provide comments as a Statutory Consultee.
- 9.2 As previously stated, a number of comments from consultees have already been submitted directly to the Scottish Government. Where consultee responses are especially important in South Ayrshire Council's assessment of the proposal, they are referred to in the following assessment, and where appropriate, have been incorporated into the recommendations made with regard to suggested comments proposed to be sent to the Scottish Government. The full text of the submissions made to the Scottish Government can be found at The Scottish Government Energy Consents Unit web page (case reference ECU00003392).
- 9.3 For ease of reference, the assessment section of this report corresponds with the Sections of the LDP policy Wind Energy and considering the relevant Supplementary Guidance criteria:
- a) Landscape impacts and (b) Visual impacts
  - c) Communities Quality of Life and Amenity
  - d) Natural Heritage
  - e) Built & Cultural Heritage and Archaeology
  - f) Aviation, Defence, Broadcasting, Cumulative Impacts and Other matters
- 9.4 Other policies: As stated above, a number of policies throughout the Local Development Plan are also relevant in the assessment of the proposed development. They are listed beneath the primary wind energy policy criterion.
- 9.5 **Criteria (a) and (b): Landscape and Visual Impact**

**We will support proposals if:**

- ✓ **They are capable of being accommodated in the landscape in a manner which respects its main features and character (as identified in the South Ayrshire Landscape Wind Capacity Study or in any subsequent updates to that study), and which keeps their effect on the landscape and the wider area to a minimum (through a careful choice of site, layout, and overall design);**

**We will support proposals if:**

- ✓ **They do not have a significant detrimental visual impact, taking into account views experienced from surrounding residential properties and settlements, public roads and paths, significant public viewpoints, and important recreational asserts and tourist attractions;**

- 9.5.1 In considering landscape and visual matters, the expertise of Carol Anderson Landscape Associates has been commissioned. Members will recall that Carol Anderson Landscape Associates is the author of the South Ayrshire Landscape Wind Capacity Study, the original version of which was used to inform South Ayrshire Council's Supplementary Guidance: Wind Energy.

**Additional LDP policies:**

LDP Policy Sustainable Development

LDP policy Landscape Quality

- 9.5.2 The proposed development comprises 13 turbines up to 200m height to blade tip, battery storage and other ancillary infrastructure lying to the south-west of Straiton. All turbines would require visible aviation lighting comprising red 2000 candela visible aviation lights attached at the nacelle and 3 x 32 candela lights on the towers of each turbine. The applicant proposes to install an Aircraft Detection Lighting System so that the lights would only come on when an aircraft approaches. Two accesses are proposed to the wind farm site using existing entrances to Carrick Forest. 7.4 km of new access track is proposed to be constructed with 8.7km of existing track upgraded. The proposal is located in a productive coniferous forest. Keyhole felling is proposed around each turbine although where this is not possible, felling will take place to the nearest forest edge.

**Policy and guidance in relation to landscape and visual matters**

- 9.5.3 SPP paragraph 169 states that the matters to be taken into consideration in the assessment of energy infrastructure developments are likely to include landscape and visual impacts, including effects on Wild Land. The application site is outwith but immediately adjacent to two Local Landscape Areas and the Merrick Wild Land Area is located approximately 3km to the east of the proposed windfarm.
- 9.5.4 The 2018 South Ayrshire Landscape Wind Capacity Study (SALWCS) provides strategic information and guidance on wind energy development. The proposed development would be sited within the Foothills with Forestry and Wind Farms Landscape Character Type (LCT) identified in this study. The increased scale, simple landform and land cover and sparsely settled nature of this LCT generally reduces susceptibility to larger turbines although potential landscape and visual constraints are raised by the relative narrowness of this upland landscape and its proximity to adjacent smaller-scale and more sensitive valleys. In particular, this proposal lies in close proximity to the upper Girvan and Stinchar valleys which are classified as the Intimate Pastoral Valley LCT and to the mid Girvan valley which is classified as the Middle Dale LCT. These are smaller scale and diverse landscapes with a high sensitivity to wind farm development of this size. The proximity of the eastern part of the proposal to the Rugged Uplands with Lochs and Forests LCT (which has dramatic and diverse scenery, little modified character, and high recreational value) additionally increases sensitivity.

**Effects on Landscape Character**

- 9.5.5 While effects on the host landscape of the Foothills with Forest and Wind Farms LCT would be direct and significant, the larger scale and generally simple landform and landcover, the presence of other wind farms and the lower value associated with this landscape reduces sensitivity. The location and size of turbines within this proposal would, however, result in more severe significant adverse effects arising on parts of the following sensitive adjoining LCTs, which lie in close proximity to the proposed wind farm site.

**Intimate Pastoral Valley LCT**

- 9.5.6 The very large turbines of the proposal would form a dominant feature seen above the narrow upper Girvan valley between Straiton and Tairlaw and from the upper reaches of the Stinchar valley in the South Balloch area. The proposal would overwhelm the small scale of these valleys and significantly detract from their scenic and secluded character.

## The Rugged Uplands, Lochs and Forests LCT

- 9.5.7 The proposal would be visible from north-western hill slopes and summits and within parts of the lower-lying basin between Cornish Loch and Loch Girvan Eye. The proposal would introduce views of very large turbines into a landscape which has relatively few human artefacts, diminishing the sense of wildness that can be experienced in parts of this LCT. Operational wind farms are already visible from the elevated parts of this landscape but the increased size and closer proximity of the turbines within the proposal would incur a much greater magnitude of change.

### **Effects on landscape designations and other valued landscapes**

#### South Ayrshire Local Landscape Areas

- 9.5.8 The LVIA considers effects on the Local Landscape Areas (LLA) which will replace the existing South Ayrshire Scenic Area landscape designation in the forthcoming Local Development Plan. The proposal does not lie in a designated landscape but would have indirect effects on designated and other valued landscapes. The effects of the proposal on the LLAs will be similar to those associated with the LCTs outlined above as there is a correlation between boundaries. Significant adverse effects would occur on parts of the following LLAs:

#### The High Carrick Hills LLA

- 9.5.9 The High Carrick Hills LLA which lies in an arc approximately 3km to the south/south-east of the proposal. The limited modification of this upland area and the qualities of wildness that can be experienced within it are noted as some of the reasons for designation outlined in the Statement of Importance for this LLA. This proposal would have a significant adverse effect on these qualities where it is visible from north-western facing slopes and summits and more intermittently from lower-lying basins in the Cornish Loch to Loch Girvan Eye area. Part of the Merrick Wild Land Area lies within this LLA.

#### The Water of Girvan LLA

- 9.5.10 The Water of Girvan Valley LLA which abuts the north-eastern boundary of the proposed wind farm site. This proposal would be principally visible in the vicinity of the upper Girvan valley between Straiton and Tairlaw, dominating the intimate scale and detracting from the rich scenic composition of this part of the LLA. It would also diminish the sense of seclusion and timelessness that is associated with part of this valued landscape.

#### The Stinchar Valley LLA

- 9.5.11 The Stinchar Valley LLA where the proposal would diminish the scenic quality and perception of seclusion towards the head of this hidden and little developed landscape, between Milton Bridge and South Balloch.

## Merrick Wild Land Area (WLA)

- 9.5.12 The nearest wind turbine within the proposal lies 3.6km from the Merrick WLA and an assessment of the effects on the qualities of the WLA is contained in EIA-R Appendix 5.5. The assessment methodology is based on Nature Scot's 'Assessing impacts on Wild Land Technical Guidance' 2020 and the description of Merrick WLA (01). The assessment focusses on the northern part of the WLA, which lies closer to the proposal and where the greatest extent of visibility is also likely to occur. Visualisations from representative viewpoints within this part of the WLA have been produced from Shalloch on Minnoch (Viewpoint 5) and from Craigmasheenie (summit and western slopes) and from Loch Girvan Eye. Visualisations have also been produced from other locations further south in the WLA. It should be noted that the Knockcronal Wind Farm LVIA includes a photomontage visualisation from Loch Girvan Eye (a particularly secluded area where no wind farms are currently visible) in Viewpoint 23 and this is also useful to review as it provides more landscape context.
- 9.5.13 The Wild Land Assessment set out in the EIAR concludes that significant effects would not arise on the Wild Land Qualities of the Merrick WLA. The Merrick WLA is important in comprising one of the very few remaining areas of undeveloped uplands in south Scotland. It is a small WLA and one where many natural heritage and other designations and other interests come together increasing its value, especially given the more modified landscapes surrounding it which feature extensive commercial forestry and wind energy development. The proposal would comprise much larger turbines than any operational turbines currently seen from the Merrick WLA. The turbines would lie 3.6km from the northern boundary of the WLA boundary with visibility principally occurring from north-west facing slopes and hill summits including from Shalloch on Minnoch, Craigmasheenie and Cornish Hill. There would be visibility of the proposal further south within the WLA (and outside the study area defined for the Wild Land Assessment) but this would be confined to the higher ridges and summits with the turbines seen at increasing distances thus reducing intrusion.
- 9.5.14 The proposed turbines would introduce new visibility of wind farm development into an area of rugged lower-lying moorland and the basin of Loch Girvan Eye in the north-eastern part of the WLA although this would occur intermittently where local landform screens the operational Dersalloch turbines which are already prominent in views from parts of this lower-lying area. More elevated and sustained views will be possible from higher ground including from Shalloch on Minnoch, Craigmasheenie and Cornish Hill. The operational Dersalloch wind farm is the closest development presently seen from these northern hills within the WLA. This proposal would be significantly closer and comprise much larger turbines than the Dersalloch wind farm in these views and would provide a marked change in the perceived degree of intrusion and encroachment on this relatively small WLA. It is considered that there would be a significant diminishment of the sense of remoteness, sanctuary and fulfilment, key perceptual responses associated with the WLA, experienced from the northern part of the Merrick WLA. This proposal would also contribute to significant combined adverse cumulative effects on the Merrick WLA in combination with the application-stage Clauchrie, Knockcronal and Craiginmoddie wind farms.
- 9.5.15 NatureScot object to the proposal as the scale and location of the Carrick wind turbines would result in a distinct step change in the proximity, prominence and visual intrusion of wind farm development upon the Merrick WLA and adversely affect qualities 1, 3 and 4. The required aviation lighting would result in additional significant adverse effects on the perception of wildness attributes at dusk and into the night and NatureScot, therefore, also object due to the significant effects of turbine lighting.

## Effects on Views

### General visibility of the proposal

- 9.5.16 The dense forest and sparsely settled nature of the land immediately surrounding the proposal limits visual intrusion in some areas. Clear visibility within 5km of the proposal would be principally concentrated to the east and north-east across the upper Girvan valley with the western-most turbines also visible from the upper Stinchar valley.
- 9.5.17 Between 5km and 10km to the south and south-east of the proposal, the turbines would be visible from the western slopes and summits of the High Carrick Hills and within part of the interior valley, and loch basin lying to the east of the ridge between Cornish Hill and Shalloch on Minnoch and from Shiel Hill east of Cornish Loch. There would be some visibility from the south-west within the upper Stinchar valley west of South Balloch with this diminishing as the valley alignment changes and the development also becomes more distant from the proposal to the west.
- 9.5.18 Intermittent visibility would occur from parts of the well-wooded Girvan valley lying to the north of the proposal. Turbines would be associated with a lower and less prominent section of the skyline in these views with partial screening of tower bases (by landform around the site) reducing their apparent scale and intrusion. This is demonstrated in LVIA Viewpoints 9, 10 and 11 and the Cultural Heritage wirelines from Dalquharran Castle and from the B741 near Kilkerran (Figures 10.6 and 10.14).
- 9.5.19 There would be very limited visibility from Straiton and Barr which are the closest settlements to the proposal and effects on other settlements, including Crosshill, would not be significant.
- 9.5.20 There would be more distant views beyond 10km of the proposal from the Maybole area and surrounding higher ground to the north-east, including from the Brown Carrick Hills. Small areas of visibility would also occur to the south-west from higher ground either side of the Stinchar valley. The majority of the representative viewpoints within South Ayrshire assessed in the LVIA lie within 10km of the proposed wind farm as can be seen on EIA Figure 6.10. Beyond this distance, it is considered that effects on views are generally unlikely to be significant.

## Key visual effects

9.5.21 It is considered that the most significant adverse visual effects would be likely to affect views from:

- The road between Straiton and Newton Stewart where it is aligned in the upper Girvan valley, as illustrated by Viewpoints 6 and 23, where the very large turbines of the proposal would introduce new views of wind farm development and the turbines would overwhelm the scale of features in views from this road. This proposal would also be seen together with the operational Dersalloch wind farm in views from settlement and from Core Path SA47 - Bennan Walk which is aligned in this valley.
- Significant adverse effects would arise from Craigengower Hill where the walk up to the Colonel Hunter Blair Monument is a popular activity (EIA-R Viewpoint 8). The size and proximity of turbines will result in them being a prominent and distracting feature seen in front of the high rounded hills that lie west of the Nick of the Balloch and south of the Stinchar valley.
- From the upper Stinchar valley where 4 turbines would be particularly prominent between Milton Bridge and South Balloch and would significantly detract from the distinctive landmark hill of Craig of Dalwine in views east along the valley.
- The High Carrick Hills including from the routes to/from, and the summits of Cornish Hill and the Corbett of Shalloch on Minnoch (Viewpoint 5). These hills are popular with walkers and this proposal would present a marked change in the size and prominence of wind turbines in views from these hills. There would also be significant adverse effects from the Loch Girvan Eye area which lies in the less frequented interior of the Merrick WLA. There would also be significant adverse effects on walkers using more informal routes on the Rowantree and Pinbreck group of hills which lie to the west of Nick of the Balloch and south of the upper Stinchar valley.

### **Effects of Visible Aviation Lighting on valued landscapes**

9.5.22 The applicant proposes to install an Aircraft Detection Lighting System. Such a system would activate the aviation warning lighting only when an aircraft is within the vicinity of the wind farm, which is likely to be a rare occurrence. When no aircraft are present, the lighting would be switched off. With such mitigation in place, the effects on the WLA and also on the Galloway Dark Sky Park (the proposal lies within the buffer zone) would not be significant. If it is not possible to install ADLS the effects of visible aviation lighting would be significant and adverse and would extend the adverse effects on the Merrick Wild Land Area, Dark Sky Park, and the Local Landscape Areas into the darker hours. It is noted that Nature Scot have objected in terms of the effects of aviation lighting on the WLA. Permanently on red aviation lighting would also extend the impacts on visual receptors in the Upper Girvan Valley and the Upper Stinchar Valley and for the relatively few people walking or camping in the high Carrick Hills. Notwithstanding the proposed mitigation, it is unclear at this time whether an ADLS can be feasibly considered as mitigation noting its dependence and reliance on other external factors in order to be reactive and respondent (including the need for all aircrafts interacting with the development to have pre-fitted transponders) alongside the fact that the relevant aviation authorities and regulators have not endorsed this form of mitigation. The Council therefore requires to adopt a precautionary approach on this and has considered the aviation lighting with limited weight applied to the ADLS as direct mitigation to offset the anticipated visual impacts of the lighting associated with the development.



## Conclusions on Landscape and Visual Amenity

9.5.23 **The effects on the host landscape Foothills with Forest and Wind Farms would be direct and significant but acceptable having regard to the larger scale and simpler landform and landcover, the presence of other wind farms and the lower value associated with this landscape. However, the immediately adjoining landscape character types are more sensitive to this form of development and there would be significant adverse effects on the Intimate Pastoral Valley LCT and the Rugged Uplands, Lochs and Forest LCT which are contained within the Water of Girvan Local Landscape Area, The Upper Stinchar Valley LLA and the High Carrick Hills LLA. The latter area also forms an integral part of the Merrick Wild Land Area and the Galloway Dark Sky Park and there would be significant adverse impacts on the designated area. The proposed wind farm would affect views from the Western Slopes of the High Carrick Hills, the Upper Stinchar Valley, west of South Balloch and from the Water of Girvan Valley to the north of the development. Significant adverse visual impacts would be likely to affect views from the Straiton to Newton Stewart road, Core Path SA47 and Craigengower Hill (Colonel Hunter Blair monument) in the Upper Girvan Valley; between Milton Bridge and South Balloch within the Upper Stinchar Valley and from the summits of Cornish Hill and Shalloch on Minnoch and the interior of the Merrick Wild Land Area and the informal walking routes on the Pinbreck and Rowantree group of hills within the High Carrick Hills. Aviation lighting will be required and will extend the adverse landscape and visual effects into the darker hours. Whilst mitigation for aviation lighting is proposed, only limited weight can be attached to the particular solution proposed in the application due to the lack of endorsement by the relevant aviation authority.**

### Effects on Tourism Attractions and Recreational Assets

9.5.24 The tourism sector is important to the South Ayrshire economy with a significant potential for growth. This expansion will be dependent on the maintenance and enhancement of environmental quality whilst ensuring that the assets on which the sector is based are protected from the impacts of inappropriate development. These objectives are reflected within the policy framework of the Local Development Plan.

9.5.25 Assets in Ayrshire and surrounding areas particularly sensitive to inappropriate development include areas designated for their scenic or recreational potential, including the Merrick Wild Land Area, Galloway Hills, the Galloway Forest Park, the Dark Skies Park and the Galloway & Southern Ayrshire Biosphere and its associated ecosystem centred around a series of core Nature sites. The application site is located within the Transition Zone of the Galloway and Southern Ayrshire Biosphere, Galloway Forest, and the Dark Sky Park Buffer Zone. Whilst the application site is outwith the Merrick Wild Land Area boundary, as described above, the proposal will have an impact on the qualities of the Wild Land Area.

9.5.26 The landscape and visual impacts of the proposal are the primary considerations with regard to the potential impacts on tourism and recreation for this particular application. As previously set out, it is noted that NatureScot objects to the application due to its significant adverse effects on the sense of remoteness and sense of sanctuary of the Merrick Wild Land Area and on the 'perception,' 'qualities' and 'experience' of wildness at dusk and into night. As noted in the assessment of the proposal under Landscape and Visual Impact above, there would also be adverse impacts on the Galloway Dark Sky Park and the High Carrick Hills Local Landscape Area. The Council has adopted Supplementary Guidance on Dark Sky Lighting. The application site is located within the Dark Sky Park Buffer Zone where the Guidance notes that there are few properties and businesses and any light within the area can be particularly conspicuous even from several miles away. Any lighting permitted within the Buffer should be Dark Sky compliant and should have no significant adverse impact on the overall night sky and natural environment. By necessity, the proposed aviation warning lighting is required to be mounted at high level on the turbines and to be conspicuous and as a consequence is not dark sky compliant. The proposed aviation lighting, in the absence of mitigation in the form discussed at paragraph 9.2.18 above, will detract from the aesthetic quality of the Dark Sky Park. The Wild Land Area and the Dark Sky Park form key features of the Buffer Zone for the Galloway and Southern Ayrshire Biosphere and it is noted that the Galloway & Southern Ayrshire Biosphere Partnership object on the grounds of landscape and visual effects and the consequential adverse effect on local tourism and sense of place. The formal and informal walking routes and important viewpoints within the Water of Girvan Local Landscape Area and the Stinchar Valley Local Landscape Area form part of the tourism and recreational assets of the area. Any significant adverse visual impacts would be contrary to the Local Development Plan objective to protect assets from inappropriate development. As noted in the assessment of landscape and visual impact, a number of these assets will experience adverse visual impact effects.

### **Conclusions on Tourism Attractions and Recreational Assets**

9.5.27 **The Council objects to this development proposal on the basis of significant adverse landscape and visual effects due to the scale and positioning of the proposed turbines and the associated impacts of these effects on the tourism and recreational resource of the locality including the Merrick Wild Land Area, Galloway Forest Park and The Dark Sky Park. It is considered that the significant adverse landscape and visual effects of this wind farm could not be mitigated by reducing the size or number of turbines. The location of this proposal is inappropriate given the sensitivity of nearby landscapes.**

9.5.28 It should be noted that an assessment of the potential physical impacts and implications of the development proposals on the rights of way and core paths which support tourism and recreation in this area has been undertaken separately in the 'Other Matters' subsection below. This considers the significance of the direct and physical impacts of the development on path networks and routes within and close to the site, the relevant mitigation that would be required to offset expected impacts alongside setting out of certain opportunities for recreational improvements that could be made should the development be granted contrary to Council recommendations.

## 9.6 Criterion (c): Communities Quality of Life and Amenity

### **We will support proposals if:**

- ✓ **They do not have any other significant detrimental effect on the amenity of nearby residents, including from noise and shadow flicker;**

### **Additional LDP Policies**

LDP Policy Sustainable Development  
LDP policy Air, Noise and Light Pollution.  
LDP policy Land Use and Transport

- 9.6.1 SPP (paragraph 164) states that individual properties and those settlements not identified within the development plan will be protected by the safeguards set out in the local development plan policy criteria for determining wind farms and the development management considerations. In this regard SPP (paragraph 169) requires that consideration shall be given to visual impact, residential amenity, noise, and shadow flicker (paragraph 169).

### **Noise**

- 9.6.2 Chapter 9 of the EIA Report sets out the applicant's assessment of potential noise and vibration impacts that could arise as a result of the proposed development during both the construction and operational phases of the development.
- 9.6.3 The majority of required construction works would be undertaken at substantial distances from the closest noise and vibration sensitive receptors. However, at their closest, some access track upgrade works will be required at an approximate distance of 220m from one receptor. An assessment of construction noise has been carried out in the EIA at the nearest receptor and this has concluded that the resulting levels from such works would be below the applicable assessment criteria as determined in accordance the British Codes of Practice for Noise and Vibration Control on Construction Sites and Open Sites. The EIAR includes an assessment of the blast induced groundbourne vibration and air overpressures associated with excavation of the proposed borrow pits. No significant effects were found due to the separation distances to the nearest sensitive receptors. The relevant chapter and appendices in the EIAR were reviewed by the Council's Environmental Health service and they concur with the findings of the EIA in relation to construction noise.

- 9.6.4 Chapter 9 of the EIAR sets out the assessment of wind turbine noise. The assessment was undertaken in accordance with the requirements of the Energy Technical Support Unit's 1996 ETSU-R-97 document: *The assessment and rating of noise from wind farms*, and the Institute of Acoustics: *A good practice guide to the application of ETSU-R-97 for the assessment and rating of wind turbine noise*. The assessment has been informed by the results of a desk-based review, site visits, a detailed baseline noise survey and a detailed noise modelling and prediction exercise. The completed assessment has accounted for cumulative effects from the proposed development operating simultaneously with existing local operational wind farms (Dersalloch and Hadyard Hill) and the proposed Craiginmoddie and Knockcronal Wind Farms. The EIAR concludes that the assessment has demonstrated that the proposed development both in isolation and with the proposed Craiginmoddie and Knockcronal Wind Farms could operate within the remaining available (residual) limits. The assessment found that no noise mitigation measures are required to be applied to the proposal. The assessment did however identify that should the Craiginmoddie Wind Farm be consented, that development would require a limited degree of turbine noise management to reduce noise levels to below day-time limits at Doughty Farm, or alternative measures such as careful turbine selection or financial involvement of the residents of that property. However, the levels from the proposed development at Doughty would be substantially below the applicable limits. The assessment also demonstrated how the available limits could be apportioned between the three-application stage proposed wind farm developments (Carrick, Craiginmoddie and Knockcronal), and how such apportioned noise limits could be used as part of consent conditions to ensure that a significant cumulative noise effect would not arise. No noise nuisance effects are anticipated as a result of the fixed plant associated with the development (substation and energy storage facility), which are located a sufficient distance away from receptors.
- 9.6.5 The operational noise assessment has been reviewed on behalf of the Council by ACCON UK Ltd, who are an environmental consultancy with specialisms in energy and wind farm developments. ACCON are content that the methodologies used for the baseline noise survey and assessing potential effects were appropriate. ACCON agree with the approach to the cumulative assessment and setting site specific noise limits and agree with the conclusion in the EIAR that noise from the operation of the turbines is not significant in EIA terms. ACCON recommend that any consent for the proposed Carrick Wind Farm should be conditioned with operational noise limits based on those adopted in the applicant's noise assessment. A condition to control amplitude modulation would also be appropriate.

## **Shadow Flicker**

- 9.6.6 The term shadow flicker refers to the flickering effect caused when rotating turbine blades periodically cast shadows over nearby properties. Shadow flicker occurs inside a property and under a certain set of conditions, including bright sunshine, when the turbines are operational and when the sun is in a particular location to cast a shadow from the wind turbines across a property. The Scottish Government's "Onshore wind turbines: Planning Advice states that shadow flicker is unlikely to be a significant impact at distances greater than ten rotor diameters. The Council's Supplementary Guidance for Wind Energy, however, requires that any property within 2.5km of a turbine should be assessed and this distance was adopted for the EIA. The assessment was carried using a computer model. A worst-case scenario was produced initially which assumed that on those times during the year when the relative positions of the sun, wind turbines and receptor could produce shadow flicker, there would be no cloud and the wind would be sufficient to move the turbines. A more realistic scenario was also produced which utilised recent meteorological data to include the probability of sunshine in a given month, the amount of time the turbines are likely to be turning and the likely direction that the turbines would be facing. There is no national planning policy guidance in Scotland relating to acceptable shadow flicker impacts. +30 hours per year or +30 minutes per day of shadow flicker is regarded as the threshold for nuisance under a worst-case assessment scenario and 8 hours per year based on a realistic case scenario assessment. One property would experience shadow flicker for a period in excess of the standard for worst case and realistic case scenarios (127:12 hours of shadow flicker per year worst case/11:43 hours per year realistic case) and would need to be mitigated by shutting down the relevant turbines when shadow flicker is likely to occur. The applicant proposes that an automated approach to shutting turbines down is used, affecting turbines 1, 3, 5 and 6.
- 9.6.7 An assessment of the potential cumulative effects of the proposed development in combination with Craiginmoddie Wind Farm and Knockcronal Wind Farm was undertaken and this identified potential cumulative shadow flicker effects at four properties. Shadow flicker predicted as a result of the proposed Craiginmoddie and Knockcronal wind farms would occur at different times of the year and at different times of day. Therefore, mitigation of shadow flicker at each individual wind farm would be required. Whilst there are no current consents for Craiginmoddie or Knockcronal, it should be noted that mitigation of shadow flicker is a standard condition applied to most wind farm developments. The Council's Environmental Health Department have no objections to the proposals on shadow flicker grounds.

## **Residential Visual Amenity Assessment**

- 9.6.8 The Residential Visual Amenity Assessment (RVAA) is set out in EIA-R Appendix 5.4 and considers the effects on 5 properties lying within 2km of the proposed development as a result of the proposed development on its own and in combination with the nearby consented and application stage wind farms. The properties considered in the assessment are shown on Figure 5.4.1. in the EIAR. This figure also shows other close-by properties mainly lying within the upper Girvan valley which lie just beyond the 2km threshold. The RVAA concludes that significant adverse effects would occur on visual amenity from 4 of these properties (Doughty Farm is considered not to be significantly affected). The assessment considered that none of these 4 properties were likely to have such severe effects that they would reach the Residential Amenity Threshold and be judged to become an unpleasant place to live.

9.6.9 Site inspections were undertaken by the Council and their landscape consultant at the properties considered in the RVAA in March 2022. The site inspections confirm that the judgements reached in the RVAA with regard to effects on all properties are appropriate, with the exception of Glenalla where it is considered that the magnitude of change incurred by the proposal, on its own, is under-estimated and would be **high** not medium-high and the level of effect therefore **major**. The conclusions of the RVAA and the Council's consideration of this is set out in the following table:

Property	No. of Carrick turbines theoretically visible or partly visible	Distance to nearest turbine	EIAR Assessed Level of Effect With Carrick Only	EIAR Assessed Level of Cumulative Effect	Council Assessment
Doughty	5	1.8km	Moderate-Minor	Major	Agree for both
Glenalla	13	1.04km	Major-moderate	Major	<b>Major for both</b>
Tairlaw Toll Cottage	6	1.41km	Moderate	Major-Moderate	<b><u>Disagree</u> with the EIAR assessment and conclude Major for both</b>
Tairlaw Toll House	13	1.42km	Major-moderate	Major-Moderate	Agree for both
Tallaminnoch	13	1.46km	Major-moderate	Major-Moderate	Agree for both

9.6.10 Glenalla: is a remote single cottage accessed from an unmetalled forest road from the U27 unclassified road near the Deil's Elbow. The Carrick wind farm would be located to the south whilst the application stage Craiginmoddie wind farm would be located to the southwest and the application stage Knockcronal wind farm would be located to the east. While the proposal would not be seen in direct views from inside the property, it is considered that the horizontal spread of turbines seen to the south and south-east, their proximity and dominance in views from the curtilage and approach to the property would result in this property reaching the Residential Amenity Threshold and that the proposal alone would lead to an overbearing visual effect. The RVAA concludes that the combined cumulative effect of this proposal with the application-stage Knockcronal wind farm, and the more prominent Craiginmoddie wind farm, would result in a **major** adverse effect on the property of Glenalla.

9.6.11 Tairlaw Toll Cottage: Is a storey and attic detached house located at the side of the C1 unclassified road (Straiton to Tairlaw). The attic space has been converted into the main living space to take advantage of the views towards the open hills to the west. The rear garden area is formed in two distinct sections, with a level area located immediately adjacent to the rear of the house and a lower-level area adjacent to the river. The proposed Carrick wind farm and the application stage Knockcronal wind farm would be located to the west of the house. The combined cumulative effect of this proposal with the application-stage Knockcronal wind farm would also result in a **major** adverse effect on Tairlaw Toll Cottage. The RVAA also considered the effect on Tairlaw Toll House which is located on the opposite of the C1 from Tairlaw Cottage. This property will have a similar view of the proposed Carrick wind farm and the Knockcronal application stage wind farm. However, foreground views of both wind farms will be partially screened by Tairlaw Toll Cottage which will reduce the magnitude of change from inside the property. There would however be views from higher up the sloping garden to the side of the house.

9.6.12 A major or moderate-major adverse visual impact is predicted at all five properties. However, it is considered that at both Glenalla and Tairlaw Toll Cottage the magnitude of impact would reach the Residential Amenity Threshold with the combined effects of all application-stage wind farms likely to have an overbearing visual effect. Visible aviation lighting without the installation of an ADLS would contribute to significant adverse effects on residential properties and especially on Glenalla and also on Tairlaw Toll cottage when seen in combination with the proposed application stage Knockcronal wind farm.

#### **Access, Traffic & Transport**

9.6.13 It is proposed that wind turbine components are delivered to Glasgow King George V Dock via the M8/M74/M6. Loads would leave the M6 at Gretna and follow the A75 to Newton Stewart before travelling north on the A714 to Bargrennan. At Bargrennan, traffic would route along the C46W (Glentool) to the proposed site access points. The C46W is a single carriageway road with passing places, varying in width from 3 metres to 6.8 metres. An initial route assessment has identified the need for removal of obstructions, including vegetation, lighting columns, poles, road signs and potential physical upgrade works including widening, regrading and embankment regarding at a number of locations. A number of potential access routes for general construction traffic have been identified. All general construction traffic will enter the site from the two existing forestry access junctions on the C46W from both the north (Straiton) or south (Glentool). Within South Ayrshire general construction traffic is likely to utilise the B741 (Girvan to Straiton), B7023 (Maybole to Crosshill) and B7045 (Maybole to Kirkmichael/Straiton). The traffic effects associated with the development would be most pronounced in close proximity to the site access junctions and on those sections of the routes where 100% of the traffic would use (e.g., the C46W). Further away from the development, traffic would disperse across the wider road network.

9.6.14 The proposed development will lead to increased traffic volumes on a number of roads in the vicinity of the site during the construction phase. These would be of a temporary nature only. The EIA Report concludes that prior to the implementation of mitigation, a moderate impact could be expected in relation to severance, pedestrian amenity and accidents and safety. A range of mitigation measures are proposed, including implementation of a construction traffic management plan (CTMP). The proposed mitigation would reduce the effects of abnormal loads and general construction traffic to slight or negligible adverse levels. No significant residual effects are anticipated in respect to traffic and transport matters and the traffic impacts associated with the operational phase would be very low with one or two small service vehicles regularly accessing the site to carry out routine maintenance. ARA do not object to the proposals but wish to see the use of the Tairlaw Bridge by HGV traffic minimised to protect the structure and as a consequence of the geometry of the road alignment. ARA support the winning of material on site to reduce the volume of HGV traffic on the public road network. The Construction Traffic Management Plan should reflect this and should also be based on the actual number of GHV movements once a decision has been made in relation to the use of stone from the borrow pits. ARA will require the applicant to enter into a Section 69 Agreement covering tonnage contributions associated with the general impact of construction loading associated with the import of materials.

### **Active Travel Access Routes and Recreation**

9.6.15 Core paths and other access routes provide an important network which give people confidence to move freely about the countryside and encourage enjoyment of outdoors for recreation. NatureScot do not object to the proposal in terms of impact on routes. NatureScot support the proposal to retain one of the construction compounds for use as a carpark for recreational users of the site. An access management plan is required to ensure that there is a strategy for managing access impacts. ScotWays have issued a holding objection, pending confirmation of the separation distances between the turbines and the paths that form rights of way. Their objection relates to lack of sufficiently detailed plans to be able to determine the distances that turbines will be setback from the walking routes that pass through the site.



## Conclusions on Communities Quality of Life and Amenity

9.6.16 During the construction phase, no significant adverse noise impacts are anticipated affecting any particular community. There is potential for one property to be affected during the construction phase, however, this can be mitigated through a planning condition controlling hours of working. No adverse noise effects are predicted as a result of the operation of the proposed wind farm operating in isolation. However, there is potential for adverse impact on one property (Doughty) as a result of the cumulative impact of the proposal and the proposed Craiginmoddie wind farm, should that development be consented and constructed. The potential cumulative effect could be mitigated through turbine noise management (automatically shutting down particular turbines under certain wind conditions). One property has potential to be adversely affected by shadow flicker, however, this potential impact can be mitigated through planning condition(s) requiring appropriate management of the operation of the turbines. The visual amenity of two properties (Glenalla and Tairlaw Toll Cottage) would be adversely affected to such a degree that these properties would become undesirable places to live. The impact cannot readily be mitigated due to the proximity of the turbines to the affected houses, the height of the turbines and the openness of views towards the turbines. No significant residual impacts on any particular community or individual residence are anticipated as a result of transportation of abnormal loads and general construction traffic following implementation of the mitigation measures proposed (Construction Traffic Management Plan, incorporated into the broader Construction and Environmental Management Plan). Whilst there is potential for the turbines to be positioned close to rights of way, no routes will be obstructed as a result of the development and there is potential to improve the range of recreational opportunities.

## 9.7 Criterion (d): Natural Heritage

### We will support proposals if:

- ✓ **They do not have a significant detrimental effect on natural heritage features, including protected habitats and species, and taking into account the criteria in LDP policy: Natural heritage;**

### Additional LDP Policies

LDP Policy Natural Heritage  
LDP Policy Sustainable Development  
LDP Policy Water Environment

9.7.1 The site is an existing commercial forest predominantly covered by Sitka Spruce plantation. The surrounding habitat to the south and east is also predominantly comprised of plantation woodland. To the north and west of the site the land is comprised mainly of agricultural rough grazing. There are several lochs within 10km of the site including Loch Bradan, Loch Riecawr, Loch Finlas and Loch Doon.

### Protected Species

9.7.2 Desk-top and on-site surveys were undertaken to identify the presence of protected species. Abundant evidence of water vole was found along the Pulreoch Burn and unnamed tributaries. Evidence of water vole was also recorded on unnamed tributaries of Tairlaw Burn and Knockoner Burn. Abundant evidence of Otter was found along Pulreoch Burn, including multiple spraints and a couch. The couch was on the outer edge of the study area, 290m from the development area. Otter spraint was also recorded on Tairlaw Burn and Palmullan Burn. Whilst parts of the site provide suitable habitat for badger, no evidence of badger was found during the site surveys. However, it is possible that badger could move into the site in the future. Abundant evidence of Pine Marten and potential Pine Martin scats were recorded in the western and central parts of the site, within mature Sitka Spruce plantation woodland. Two adult Pine Martens were observed in the northwest of the site and one potential den was spotted at Stob Hill (located 250m from the nearest access track and 350m from the nearest wind turbine). There was evidence of Pine Marten within areas of fallen trees within the north and west of the site. The habitat suitability assessment found the northern and western parts of the area to have moderate suitability for red squirrel. Whilst evidence of squirrel was found within the site, no sightings were made, and it was not possible to attribute the evidence to red or grey squirrel. The desk top study however provided evidence of red and grey squirrel being present within the site and the wider area. The eight existing ponds within the site were found to be of poor suitability for supporting Great Crested Newt (GCN). DNA analysis returned either negative or intermediate results. No GCN were recorded during trapping and torch surveys in any of the ponds surveyed and are considered to be absent from the site despite a positive eDNA result in 2015 provided by Forestry & Land Scotland.

9.7.3 Other notable species of *conservation concern* were recorded as present including common lizard, brown hare, butterflies, and deer. The site has the potential to support hedgehogs, various invertebrate species, and other reptiles.

## Bats

- 9.7.4 Bat survey work was undertaken at the site in Autumn 2019, Spring 2020, and Summer 2020. Static bat detectors were distributed throughout the site based on the proposed development. Five species/genera of bat were recorded including Soprano Pipistrelle, Common Pipistrelle, *Myotis* species, Brown Long-eared Bat and Leisler's Bat. Three proposed wind turbines (T1, T5 and T6) are potentially within vicinity of bat with two (T2 and T8) potentially being less than 200m from roosts. A bat mitigation plan is proposed. The mitigation plan proposes that turbines will be paused prior to sunset and sunrise in certain weather conditions. The proposed initial mitigation plan would be varied if monitoring of bat fatalities indicates an alternative plan is necessary. NatureScot do not object to the proposal in terms of the potential for adverse impact on bat and welcome the minimum buffer distance of 50 metres from blade swept path to habitat features. However, NatureScot advise that any consent given should reflect the requirement to retain an open buffer between turbines and surrounding trees, woodlands, watercourses and buildings, to feather all turbines to reduce rotation speed whilst idling during the active bat season (dawn-dusk, April-October) from the outset of the operation of the development, implement a turbine curtailment regime and bat monitoring as proposed in appendix 7.4 (with amendments) and require a minimum 3 years post-construction monitoring.

## Birds

- 9.7.5 There are two SSSIs within 10km of the site (Merrick Kells and Bogton loch) which are designated for ornithological features. The EIA assessed that connectivity between the wind farm site and these areas was unlikely. The Galloway Forest Park is recognised as an important bird area (non-statutory). In addition, the River Stinchar (Milton to Black Hill) Provisional Wildlife Site, located to the southwest of the site, is noted for its breeding bird interest. A series of ornithological studies were undertaken between September 2018 and August 2020 to identify the effects on breeding, foraging and roosting birds. Across the two-year survey period, a total of 166 flights by 13 target species were recorded, with Osprey recorded the most frequently. The remaining species levels of activity were low. Small numbers of male Black Grouse were occasionally recorded, the majority of which were outwith the breeding season. The Desk Study revealed multiple records of Black Grouse within 2km of the site, including small numbers of lekking birds in four areas within the Black Grouse Study Area. Breeding birds were recorded within the study area. Active or historic territories of three breeding Schedule 1 raptor species were identified within the Breeding Raptor Study Area, details of which are provided within a confidential annex. During the non-breeding season, the majority of bird species recorded were common and widespread species typical of plantation habitat. The impact of the construction phase of the wind farm on birds was assessed in terms of habitat loss, habitat modification and disturbance/displacement. The extent of bird habitat loss would be 26.72 ha, the majority of which (85%) would be coniferous plantation. The remainder would consist of bog (9.5%), dry heath (4.2%) and semi-improved neutral grassland (1%). The EIAR concludes that the proportion of habitat loss would be relatively low, and it is likely that species affected by habitat loss would be able to use suitable habitat within the wider area. Areas of plantation would be permanently modified to open ground (around the turbine bases). However, the extent of modified habitat is considered by the authors of the EIAR not to be significant. During the construction phase there would be increased levels of activity by site personnel, vehicles and machinery resulting in increased levels of noise and visual disturbance. This could lead to the temporary displacement or disruption of breeding, foraging and/or roosting birds. The applicant proposes a Bird Protection Plan, in consultation with NatureScot, to further mitigate the impact on breeding birds and any roosting hen harriers. The Plan would be overseen by an Ecological Clerk of Works (ECoW). Initial measures proposed include pre-construction surveys for crossbill, black grouse and other bird species, protection of nesting birds, minimisation of disturbance to black grouse and protection of roosting hen harrier. During the operational phase there is a risk of birds colliding with the wind turbine blades. The EIAR identified a low risk of osprey colliding with the turbines. However, although an effect is predicted, it is not considered to be of sufficient magnitude to affect the abundance and distribution of this species locally. However, given that the breeding Osprey population in Ayrshire is small, a three-year monitoring programme is proposed for this species. All other bird species were considered to be at negligible collision risk.
- 9.7.6 NatureScot do not object to the proposed development in terms of birds, subject to conditions ensuring the proposed mitigation is implemented.

## Habitats

- 9.7.7 There are no statutorily designated sites of nature conservation within the site and the nearest is located 6.7km north (Merrick Kells SAC/SSSI). Four non-statutory designated sites are located within the site, one of which overlaps the proposed development area. The survey area was dominated by coniferous plantation. Forest rides were modified in some way due to drainage ditches created for the forestry, though communities identified within these still tended to be very wet and included blanket bog. Clearings near Garleffin Fell in the west, around Linfern Loch in the centre of the study area and by Clashverains to the north held the greatest botanical diversity and interest and include dry and wet heath, blanket bog, flush and marshy grassland communities. No notable species were recorded within the site. Notable species were identified outwith the site including the legally protected *H. non-scripta* (Bluebell).

## **Conclusions on Natural Heritage**

- 9.7.8 **The findings of the EIA indicate that the proposed development will not have any significant adverse effects on protected species that are present within or close to the site and no designated nature conservation sites will be adversely impacted. Mitigation is proposed in relation to the potential adverse effects on bats and birds. A habitat management plan is proposed to enhance the biodiversity value of the cleared areas of commercial forest plantation. There are no natural heritage objections to the proposed development from RSPB, Saving Scotland's Red Squirrels and NatureScot. RSPB note the increased collision risk for Osprey but agree that there will not be a significant impact at the population level and support the inclusion of an osprey monitoring programme as proposed in the application. NatureScot have no objection to the proposals in terms of protected areas, protected species and habitats but note the requirement for pre-construction surveys completed no more than three months before the start of works.**

## 9.8 Criterion (e) Built & Cultural Heritage

### We will support proposals if:

- ✓ **They do not have a significant detrimental effect on the historic environment, taking into account the criteria in LDP policy: historic environment and LDP policy: archaeology;**

### Additional LDP Policies

LDP Policy Sustainable development  
LDP Policy Historic environment  
LDP Policy Archaeology

- 9.8.1 An archaeological and cultural heritage assessment for the EIA identified 120 heritage assets within the wider study area, 7 of which are within the site. Those situated within the site relate to post-Medieval agricultural practices from the 18<sup>th</sup> and 19<sup>th</sup> centuries and are deemed to be of low or negligible value. An assessment of the archaeological potential for currently unknown heritage assets to be present within the site is deemed to be low due to the altitude, previous commercial forestry activity and lack of archaeological remains in close proximity, other than the Post Medieval agricultural assets. There are no designated archaeological sites within the development area. The layout of the development has been designed as far as possible to avoid direct impacts on the identified heritage assets. However, there are potential impacts on all of these features which range in magnitude from minor to major. Mitigation is proposed, including demarcation, and recording and with these measures in place the residual significance of effect would be neutral for most assets. One section of drystone wall will require to be removed at Linfern Loch resulting in a slight adverse impact.
- 9.8.2 An archaeological and cultural heritage assessment for the EIA identified 120 heritage assets within the wider study area, 7 of which are within the site. Those situated within the site relate to post-Medieval agricultural practices from the 18<sup>th</sup> and 19<sup>th</sup> centuries and are deemed to be of low or negligible value. An assessment of the archaeological potential for currently unknown heritage assets to be present within the site is deemed to be low due to the altitude, previous commercial forestry activity and lack of archaeological remains in close proximity, other than the Post Medieval agricultural assets. There are no designated archaeological sites within the development area. The layout of the development has been designed as far as possible to avoid direct impacts on the identified heritage assets. However, there are potential impacts on all of these features which range in magnitude from minor to major. Mitigation is proposed, including demarcation, and recording and with these measures in place the residual significance of effect would be neutral for most assets. One section of drystone wall will require to be removed at Linfern Loch resulting in a slight adverse impact.
- 9.8.3 Outwith the site, one designated heritage asset (Knockinculloch Enclosures) is anticipated to receive a significant effect of Moderate Adverse in relation to impact on its setting. Historic Environment Scotland do not consider that the effect of the development on the setting of the monument merits refusal of the proposal. Historic Environment Scotland have also commented that the mitigation proposed by the applicant (peat core sample) is not necessary and would in any case be unacceptable intervention. West of Scotland Archaeology have advised that they are generally in agreement with the EIA and do not consider that the proposed development will result in significant heritage impacts that would merit refusal of the development. WoSAS do however recommend that a programme of archaeological works is undertaken within the development site to ensure that any unrecorded archaeology is identified and recorded.

## Conclusions on Built and Cultural Heritage and Archaeology Assessment

9.8.4 **The proposed development does not raise any significant cultural heritage concerns, subject to a condition requiring a programme of archaeological works to be undertaken to record and recover any unknown archaeological assets within the development site.**

### 9.9 **Criteria (F); (G) & (H): Aviation, Defence, Broadcasting, Cumulative Impacts & Other Matters**

#### **We will support proposals if:**

- ✓ **They do not adversely affect aviation, defence interests and broadcasting installation; and their cumulative impact in combination with other existing and approved wind energy development, and those for which applications for approval have already been submitted, is acceptable.**

#### **Secondary LDP Policy**

LDP policy Natural Heritage  
LDP policy Archaeology  
LDP policy Historic Environment  
LDP policy Air, Noise and Light Pollution  
LDP policy Protecting the Landscape  
LDP policy Sustainable Development  
LDP policy Spatial Strategy  
LDP policy Water Environment

#### Aviation and Defence

9.9.1 Glasgow Prestwick Airport (GPA) and National Air Traffic Services (NATS) have objected to the proposed wind farm. GPA note the applicant's intended mitigation for aviation safety lighting which includes installation of an Aircraft Detection Lighting System (ADLS). GPA note that approval of ADLS is solely a matter for the CAA but wish to be consulted on any proposals should the Scottish Ministers be minded to grant approval subject to a condition requiring ADLS. The safeguarding assessment carried out by GPA has identified potential adverse effects on the Airport's primary surveillance radar, secondary surveillance radar and the VHF/UHF communication equipment. Those issues having been identified; the Airport conducted the Air Traffic Control Operational Impact Assessment (ATC Operational Impact Assessment). This assessment indicated that, although the development is outwith the Controlled Airspace, it is operationally significant area of airspace in which the Airport's Air Traffic Controllers regularly provide an air traffic service. Having regard to the adverse operational impact, one of the conclusions of the assessment is that mitigation will be required for those turbines which will be visible to the Airport's primary radar. GPA have stated that whilst it may be possible to mitigate radar clutter this is not guaranteed. Further, should it be possible to mitigate the impact, the mitigation measures will require to be kept in place by the Airport for the lifetime of the development. Other issues identified by GPA include the need for aviation warning lighting, potential loss of VHF Ground to Air Communications, potential loss of low-level surveillance cover and general cumulative impact of having so many windfarms in close proximity to each other including adverse effect on the Airports second surveillance radar data feed from the NATS Lowther Hill radar. The CAA have not responded to the consultation.

9.9.2 The development falls within a Ministry of Defence (MoD) Tactical Training Area within which fixed wing aircraft operate as low as 100 feet above ground level and the turbines have the potential to introduce a physical obstruction. To mitigate this impact the MoD, require the development to be fitted with aviation safety lighting and sufficient information to ensure that the structures can be accurately mapped to allow deconfliction.

## Broadcasting and Telecommunications

- 9.9.3 The Joint Radio Council and British Telecommunications PLC have no objection to the proposal. In line with standard practice, it is anticipated that Scottish Ministers would add a condition requiring mitigation for any unanticipated interference with TV signals should the development be approved.

## Cumulative Effects

- 9.9.4 No cumulative landscape and visual impacts with the operational Hadyard Hill or Dersalloch wind farms have been identified, however, the location of the proposed wind farm is close to other proposed wind farms that are at application stage, including Knockcronal, Craiginmoddie and Clauchrie. The assessment of the proposal under Criteria A and B (landscape and Visual Impact) above has identified adverse cumulative impact on the landscape character of the immediately adjoining Landscape Character Types (Rugged Uplands, Lochs and Forest LCT and Intimate Pastoral Valley LCT) and the associated landscape designations of Merrick Wild Land Area, High Carrick Hills Local Landscape Area, Water of Girvan Local Landscape Area, and the Stinchar Valley Local Landscape Area. Cumulative adverse visual impact has also been identified on popular walking routes within the High Carrick Hills LLA (represented by Viewpoint 5), from Craigengower Hill near Straiton (Viewpoint 8) as well as from more informal walking routes around Pinbreck Hill and Rowantree Hill which lie on the southern outer edge of the Stinchar Valley. Cumulative adverse visual impacts are also anticipated from the Straiton to Newton Stewart minor road. The combined visual effects of the proposal and the application stage Knockcronal wind farm would result in an adverse impact on Residential Visual Amenity at Tairlaw Toll Cottage. An adverse impact on Residential Visual Amenity is also anticipated at Glenalla due to combination of the current proposal and the Knockcronal and Craiginmoddie proposed application stage wind farms. The potential for cumulative noise and shadow flicker effects is discussed under Criterion C however it is noted that conditions can be imposed on any consent to avoid noise nuisance. No other cumulative impacts have been identified.

## **Other Matters**

### Forestry

- 9.9.5 The turbines and other site infrastructure are to be keyholed into the existing conifer woodland. Where this is not possible due to the age or stability of the crop, entire coupes are to be felled and restocked. The restocked areas will include open areas around the turbines measuring 100m in radius around each turbine base. Approximately 223ha of felling would be required to facilitate construction. Following consideration of restocking, the area of unplanted ground within the site would increase and as a result there would be a net loss of woodland area of 96.68ha which will require compensatory planting elsewhere.



9.9.6 NatureScot welcome the opportunities to improve the resilience of the conifer dominated forest and to increase its contribution to providing a high-quality environment and advise that increasing the proportion and diversity of native species is appropriate to this objective. Diversification of woodland planting would also benefit Black Grouse and the applicant is encouraged to incorporate additional riparian woodland creation and open space in excess of that proposed. Ayrshire Rivers Trust have also requested additional native tree planting within riparian areas. The re-stocking planting proposed around the edges of the borrow pits should take account of the restoration of these areas to peatland and not result in planting that affects light and water conditions. Forestry and Land Scotland (FLS) have advised that the changes required to the previously approved land management plan for the Carrick Forest to allow for the construction of wind farm will have a modest negative impact on forest restructuring. The area of compensatory planting required to mitigate the permanent loss of woodland arising from the development is 97.2ha of productive forest plus additional land to be planted with native broadleaves and open ground.

#### Surface Water, Groundwater and Private Water Supply (PWS)

9.9.7 The site is located across the catchments of the Water of Girvan and the River Stinchar. The northern part of the site is drained by the Water of Girvan catchment and its tributaries, including the Palmullan Burn and the Knockoner Burn. The southern extents of the site are drained by the River Stinchar and its tributaries, including Linfern Loch Burn and Dalquhairn. The eastern extent of the site is drained by the Tairlaw Burn and its tributaries including Pulreoch Burn. Linfern Loch is located immediately south of the site. Within the site there are numerous small artificial channels which are associated with the conifer plantation. Flood risk data supplied by SEPA indicates flood risk limited to the immediate area adjacent to the River Stinchar, Tairlaw Burn, near water crossing WC01, Palmullan Burn and Water of Girvan. Small discrete locations of surface water flooding are noted adjacent to the small tributaries of the River Stinchar and Water of Girvan. A large part of the south and south - east of the site is located within a Drinking Water Protected Area and an associated pipeline runs south of the site adjacent to the C46w public road. There are five private water supplies within a 5km radius which supply individual houses and farms. The River Stinchar, Dalquhairn Burn, Palmullan Burn, Tairlaw Burn and Pulreoch Burn are recognised as having potential to support fish populations. The EIAR states that the iterative design process aimed to minimise the number of water crossings and avoid areas of deeper peat. At the detailed design stage, micro siting of turbine bases and access tracks will aim to optimise the distances from waterbodies and peat. The development will require seven water crossing (two new crossings and five upgraded) for the access tracks. Mitigation measures will be implemented to reduce potential alterations to sub-surface flows and groundwater levels and, as a result, to reduce potential effects on Ground Water Dependent Terrestrial Ecosystems. SEPA do not object to the water-crossings, subject to use of single span or bottomless arched culverts and the appropriate authorisations being sought. No private water supplies were considered to be at risk and this conclusion is supported by both the Council's Environmental Health service and SEPA.

- 9.9.8 NatureScot support the proposals detailed in the EIAR section 7.6.3 to maintain a minimum 50m buffer around watercourses and that the design of new watercourse crossings will maintain hydrological connectivity and allow free passage of fish and other species. NatureScot also support the development of fish monitoring plan and the inclusion of pollution prevention plans within the CEMP. NatureScot advise that opportunities to improve riparian habitat condition through native broadleaf planting to protect the aquatic environment from increased sedimentation caused by the construction works. NatureScot encourage the provision of a bridge at water-crossing number 1 in preference to a culvert. Ayrshire Rivers Trust (ART) do not object to the proposed development subject to conditions to ensure that all the new and upgraded water crossings ensure continuous fish passage and flow, ensuring that there are no hanging culverts and resident fish are removed prior to any instream works. ART have also advised that the monitoring program to assess the impacts of construction works should include provision to monitor the water crossings. ART have also made recommendations in relation to matters to be included in the Construction Environment Management Plan and the species protection plan for Water Vole.
- 9.9.9 SEPA are of the opinion that most of the site will be classed as Groundwater Dependent Terrestrial Ecosystem. Whilst the EIAR concludes that the site has low groundwater dependency, the habitats are nevertheless protected and SEPA would expect the developer to avoid these locations in the first instance. Where avoidance is not possible, SEPA expect robust mitigation to be provided to ensure hydrological connectivity is maintained. This matter could be addressed through planning conditions if permission is granted.

#### Peat

- 9.9.10 SPP paragraph 205 states that where peat and other carbon rich soils are present, applicants should assess the likely effects of development on carbon dioxide (CO<sub>2</sub>) emissions. Where peatland is drained or otherwise disturbed, there is liable to be a release of CO<sub>2</sub> to the atmosphere. Developments should aim to minimise this release. The EIAR states that the scheme design has avoided the location of class 1 peat and there are no areas of class 2 peat. NatureScot do not object to the proposal in respect to impact on Carbon-rich soils, deep peat, and priority peatland habitat. There is an area of Class 1 peat 90m east of Turbine 5 and NatureScot have noted that micro-siting should not be permitted that would jeopardise this area. NatureScot welcome the outline habitat management plan, which has identified an area of 28ha for peat restoration and is aiming for net gain of functioning peatland of 18.6ha. The potential would be further enhanced if the habitat in the key-holing areas were also to be restored to peatland, assuming they are located on peat of average depth 1.0m. NatureScot note that a detailed Peat Management Plan and Construction Environmental Management Plan are required to demonstrate how the mitigation proposed in the application documents will be incorporated into the construction activities.

9.9.11 Notwithstanding the positive response from NatureScot, SEPA have issued a holding objection in respect to the potential impact on the peat resource within the site. SEPA do not consider that the applicant has minimised the excavation of peat of one meter or greater depth. SEPA note that areas around T1, T2, T3, T7, T10 and T13 and the substation would all be classed deep peat. Furthermore, some sections of new track would be built on areas of deeper peat. SEPA require evidence that through micro-siting, use of floating tracks and use of geotextile surfaces for blade storage, etc, that the amount of peat excavated can be reduced. SEPA further advise that where this cannot be achieved, turbines should be removed from the plan unless sufficient justification can be provided. SEPA have also requested further information to demonstrate how peat removed can be reintegrated into a functional peatland system. The proposed 3.5 metre peat verges are considered excessive unless they tie into existing peatland and the reuse of peat for restoration of the borrow pits should be limited to the depth that exists currently in these locations (e.g., average 0.47m) to ensure functionality and ensure that the peat does not dry out. Borrow pit areas would also need to be hydrologically linked with the surrounding peatland areas (which may not be appropriate for borrow pits 3 and 4). Peat should not exceed a maximum of 2.0 metres deep within the borrow pits.

#### Deer

9.9.12 The site is currently used by both roe and red deer. The scope and scale of the forest operations mean that displacement of deer as a result of the development is not anticipated. Notwithstanding, NatureScot advise that monitoring of deer impacts on the aims of the Habitat Management Plan should be included within the HMP. Should monitoring show that deer impacts are preventing the achievement of the HMP objectives, deer management should be reviewed.

#### Borrow Pits

9.9.13 The Scottish Government included within Scottish Planning Policy (paragraph 243) a new approach to the use of borrow pits for wind farm construction. Borrow pits can be extensive areas within the site of a windfarm and are commonly used for the extraction of sand and aggregates used in the associated developments such as crane pads, compounds and the upgrade and delivery of access routes etc. The policy advice is to limit their use and only to permit them on site if there are significant environmental or economic benefits compared to obtaining material from local quarriers. The Initial Borrow Pit Assessment submitted with the application (refer to EIAR Appendix 6.6) indicates that there is likely to be sufficient mineral resources available on-site to meet all of the aggregate requirements for construction of the wind farm. Sourcing the aggregate on-site would result in a significant reduction in HGV traffic on the road network. This would significantly benefit road users within the immediate vicinity of the access points to the proposed wind farm site in terms of convenience and safety. There would also be a reduction in CO2 emissions from the construction of the wind farm albeit that this CO2 saving has not been quantified within the EIAR. The borrow pit locations are not prominent within the wider landscape setting and the noise and vibration assessment provided within the EIAR indicates that there would be no adverse impact on the nearest dwellings. The Hydrology Chapter did not identify any significant risk of contamination of groundwater or surface water. Subject to conditions controlling blasting and reinstatement, it is considered that the proposed borrow pits are acceptable and will have beneficial effects for road safety and climate change.

## **Conclusions on Aviation, Defence, Broadcasting, Cumulative Impact and Other Matters**

- 9.9.14 Both Glasgow Prestwick Airport (GPA) and NATS have issued holding objections. The safeguarding assessment carried out by GPA has identified potential adverse effects on the Airport's primary surveillance radar, secondary surveillance radar and the VHF/UHF communication equipment. Gradual erosion of airspace through wind farm development has the potential to compromise safety, flexibility, capacity and potentially the viability of the airport. Therefore, the Supplementary Guidance for Wind Energy requires developers to demonstrate that their development does not impinge on the current operation of Glasgow Prestwick Airport and applicants are required to demonstrate agreement between themselves and the relevant operator that mitigation can be delivered within a reasonable timeframe and provide appropriate mitigation. No such agreement has been reached at this time and the proposal is therefore contrary to this aspect of the Supplementary Guidance Criterion F.**
- 9.9.15 The assessment of the proposal under Criteria A and B (landscape and Visual Impact) above has identified adverse cumulative impact on the landscape character of the immediately adjoining Landscape Character Types (Rugged Uplands, Lochs and Forest LCT and Intimate Pastoral Valley LCT) and the associated landscape designations of Merrick Wild Land Area, High Carrick Hills Local Landscape Area, Water of Girvan Local Landscape Area, and the Stinchar Valley Local Landscape Area. Cumulative adverse visual impact has also been identified on popular walking routes within the High Carrick Hills LLA (represented by Viewpoint 5), from Craigenhower Hill near Straiton (Viewpoint 8) as well as from more informal walking routes around Pinbreck Hill and Rowantree Hill which lie on the southern outer edge of the Stinchar Valley. Cumulative adverse visual impacts are also anticipated from the Straiton to Newton Stewart minor road. The combined visual effects of the proposal and the application stage Knockcronal wind farm would result in an adverse impact on Residential Visual Amenity at Tairlaw Toll Cottage. An adverse impact on Residential Visual Amenity is also anticipated at Glenalla due to combination of the current proposal and the Knockcronal and Craiginmoddie proposed application stage wind farms. Having regard to the identified cumulative landscape and visual impact, the proposal is considered to be contrary to criterion G of the Supplementary Guidance.**
- 9.9.16 SEPA have issued a holding objection in relation to the possible impact on the peat resources within the site. SEPA do not consider that the applicant's proposals have minimised the excavation of peat of depth greater than one metre as required by Scottish Planning Policy and Criterion H of the Council's Supplementary Guidance. SEPA have advised that additional information is required to demonstrate how the disturbance of peat can be reduced. SEPA have additionally raised concerns over the manner in which surplus peat would be used in the reinstatement of the access track verges and the borrow pits. Given the holding objection response provided by SEPA, it is considered that the proposal is potentially contrary to Criterion H in relation to Peat.**

## **10. Other Significant Policy Considerations**

### **National Climate Change Policy, Energy Policy and Planning Policy**

- 10.1 The Scottish Government's policies, commitments and targets for sustainable energy are set out in ministerial statements, key policy documents and statute. The key ministerial statements and policies considered as part of the assessment of the current proposals are The Scottish Government's Declaration of a Climate Emergency (2019), the emissions reductions targets set out in the Climate Change (Emissions Reduction) (Scotland) Act 2019, The Scottish Energy Strategy (December 2017), Consultative Draft Onshore Wind Energy Statement Refresh 2021, and The Scottish Climate Change Plan 2018 to 2032 (2020 update).

### **National Planning Policy Framework 3**

- 10.2 The vision set out in NPF3 includes a growing low carbon economy. The greenhouse gas reduction targets set out in the Climate Change (Scotland) Act 2009 are integrated into national planning policy. The PPF3's policies address steps required within spatial planning to achieve the targets not only in energy generation, but in a range of sectors including land use management, waste management, urban infrastructure, sustainable water management, peatland restoration and transport. NPF3 refers to the spatial framework provided by SPP for wind-energy development as guiding new wind energy development to appropriate locations, taking account of important features such as Wild Land. It encourages diversification in the energy sector and indicates the Government's expectation that the pace of onshore wind will be overtaken by a growing focus on marine-energy opportunities. Members should note that NPF3 is currently being reviewed and a "Position Statement on NPF4" was published in November 2020. The Position Statement provides an indication of the direction of travel. It is important to note that the Position Statement is not a policy document and is not a material consideration in the assessment of the current proposal.

### **Scottish Planning Policy 2014**

- 10.3 Includes among the four outcomes it seeks that Scotland should be a successful, sustainable place, and a resilient place. It incorporates statutory targets for reduction of carbon emissions. In this context it sets out the renewable energy targets and the principles for spatial frameworks and it also makes it clear that the individual merits of a wind-energy proposal require to be carefully considered against the list of considerations set out in paragraph 169. This is in line with the principle that sustainable growth should ensure the right development in the right place.

## Conclusion on National Policy

- 10.4 **NPF3 and SPP are the primary statements on national planning policy for onshore wind. Whilst these documents predate more recent policies/strategy documents, advice and targets relating to climate change, there is no indication from the Scottish Government that the national policy move from low carbon to net-zero carbon has changed the decision-making criteria or parameters for onshore wind in individual cases. The move to a net zero target has the effect of altering the requirements imposed on the Scottish Ministers in relation to electricity generation and also to the concomitant decarbonisation of heat and transport. There has been and continues to be strong support for onshore wind but only if it is the right development in the right place. There is nothing express in the Climate Emergency Declaration, the national strategies for climate change and renewable energy that would indicate a departure from policy as set out in NPF3 or SPP. Whilst the National Planning Framework is currently being reviewed the Draft Fourth National Planning Framework laid before the Scottish Parliament on 10 November 2021 makes it clear that NPF3 and SPP remain in place until NPF4 is adopted by Ministers. As with the assessment against the provisions of the LDP, it considered that the proposed development is therefore not fully in accordance with Scottish Planning Policy.**

## 11. Benefits of the Proposed Scheme

- 11.1 The Planning Statement submitted with the application lists the main benefits of the proposed wind farm as:
- i. 140 net jobs per annum in South Ayrshire over the construction period (the total net Gross Value-Added contributions over this period would be £8.8 million per annum)
  - ii. 99 gross jobs in South Ayrshire and a Gross Value-Added contribution of £5,871,191 generated during the operational lifetime of the proposed development
  - iii. anticipated nominal capacity of approximately 86 MW and annual generation estimated at 255.5 GWh based on an operational capacity figure of 34% (sufficient to power 71,421 average UK households)
  - iv. the scheme will contribute towards the urgent requirement to reduce carbon emissions to meet Scotland's Climate Change legal obligations
  - v. development would 'pay back' the carbon emissions associated with the scheme's construction, operation and decommissioning in 3.5 years applying the Grid Mix replacement scenarios. Assuming a 40-year life span this equates to an overall carbon saving of 11 times the carbon emitted.
  - vi. The proposed storage facility would provide a rapid and flexible release and storage of electricity to allow the national grid to regulate electricity supply and demand (e.g., grid balancing).
  - vii. The proposal will make use of existing infrastructure including forest access tracks, two borrow pits and a 275 kV overhead powerline located on the southern edge of the site.

- viii. It is expected that the proposed development will establish a community benefit arrangement with local communities. It is expected that the community development funds would provide enhancements to the local area by upgrading sections of existing forest tracks.
- ix. The local community would also have the opportunity to invest in the proposed development through the shared ownership/community investment scheme
- x. In addition to mitigating the adverse impacts of the development the applicant is committed to enhancing the nature conservation and landscape value of the site. The key focus of the Habitat Management Plan is restoration of blanket bog. The Outline Habitat Management Plan proposes the restoration of 28 ha of bog which in turn will give rise to other biodiversity benefits for example for invertebrates, amphibians, and ground nesting birds.

## 12. Conclusion

- 12.1 **In conclusion, having considered the applicant's Environmental Impact Assessment Report and supporting documentation and notwithstanding the identified benefits of the scheme, together with the consultation responses received and having balanced the developer's interest against the wider community interest it is recommended that an objection be submitted to the Scottish Government.**

## 13. Recommendation

- 13.1 It is recommended that the Regulatory Panel notes that this report has been submitted as an objection to the Scottish Government, for the reasons (a), (b), (c), (d), (e) and (f) listed below. It is also recommended that comment g) below is submitted to the Scottish Government.
- 13.2 That the Regulatory Panel note that in the event that a planning authority objects to a Section 36 application, and does not withdraw its objection, a public inquiry must be held, before the Scottish Ministers decide whether to grant consent (Refer Paragraph 2, Schedule 8 of the Electricity Act, 1989).

### Reasons For Objection

#### Landscape and Visual Impact

- (a) **That the proposed development is contrary to South Ayrshire Local Development Plan policies 'Wind Energy – Criterion a), b) and c)', 'Sustainable Development' and 'Landscape Quality' and South Ayrshire Supplementary Guidance on Wind Energy and SALWCS on the basis of significant adverse landscape and visual effects due to the scale and positioning of the proposed turbines on their own and in combination with other proposed/application stage wind farms in the surrounding area. It is not considered that the significant adverse landscape and visual effects of this wind farm could be mitigated by reducing the size and or number of turbines, with the location being inappropriate given the sensitivity of nearby landscapes and designations. There is no reason to depart from South Ayrshire Local Development Plan policy or Supplementary Guidance on Wind Energy.**

### Landscape and Visual Impact – Aviation Lighting

- (b) That the proposed development is contrary to South Ayrshire Local Development Plan policies ‘Wind Energy – Criterion a) and b) and LDP Policy Air, Noise and Lighting Pollution and the Supplementary Guidance: Dark Sky Lighting by reason that the applicant has not demonstrated that aviation lighting would not introduce intrusive and prominent lights into an area important for dark skies, thus adversely impacting upon views from the Merrick Wild Land Area and the Galloway Dark Sky Park. There is no reason to depart from South Ayrshire Local Development Plan policy or Supplementary Guidance on Wind Energy.

### Landscape & Visual Impact – Tourism and Recreation Resources

- (c) That the proposed development is contrary to South Ayrshire Local Development Plan policies ‘Wind Energy – Criterion a), b) and c)’, ‘Sustainable Development’ and ‘Landscape Quality’ and South Ayrshire Council Supplementary Guidance on Wind Energy and SALWCS on the basis of significant adverse landscape and visual effects due to the scale and positioning of the proposed turbines and the associated impacts of these effects on the tourism and recreational resource of the locality including the; Merrick Wild Land Area, Galloway Forest Park, The Dark Sky Park, Galloway and Southern Ayrshire Biosphere, High Carrick Hills Local Landscape Area, the Water of Girvan Valley Local Landscape Area and important viewpoints from the Straiton to Newton Stewart road, Core Path SA47 and Craigenhower Hill (Colonel Hunter Blair monument) in the Upper Girvan Valley; the public road between Milton Bridge and South Balloch within the Upper Stinchar Valley and from the summits of Cornish Hill and Shalloch on Minnoch and the interior of the Merrick Wild Land Area and the informal walking routes on the Pinbreck and Rowantree group of hills within the High Carrick Hills. The required aviation lighting will extend the adverse landscape and visual effects into the darker hours. Whilst mitigation for aviation lighting is proposed, only limited weight can be attached to the particular solution proposed in the application due to the lack of endorsement by the relevant aviation authority.

### Landscape & Visual Impact – Residential Visual Amenity Impact

- (d) That the proposed development is contrary to South Ayrshire Local Development Plan policies ‘Wind Energy – Criterion C), ‘Sustainable Development’ and South Ayrshire Council Supplementary Guidance on Wind Energy by reason that the proposed development would have a significant and overbearing impact upon the residential visual amenity of a nearby residential dwelling at Tairlaw Toll Cottage. Furthermore, the proposed development, in combination with the application stage Craiginmoddie Wind Farm, will have a significant and overbearing impact upon the residential amenity of the nearby dwelling at Glenalla. There is no over-riding reason to depart from South Ayrshire Local Development Plan policy or Supplementary Guidance on Wind Energy.



## Glasgow Prestwick Airport

- (e) That the proposed development is contrary to South Ayrshire Local Development Plan policies 'Wind Energy – Criterion f), 'Sustainable Development' and South Ayrshire Council Supplementary Guidance on Wind Energy on the basis that the developer has not demonstrated at the time of consideration of the application and finalising the Council's recommendation that their development does not impinge on the current operation of Glasgow Prestwick Airport as an agreed radar mitigation is not in place and available and maintained for the lifetime of the windfarm. There is no reason to depart from South Ayrshire Local Development Plan policy or Supplementary Guidance on Wind Energy.

## Peat Resources

- (f) Having regard to the holding objection issued by SEPA it is not considered that the proposals have sufficiently demonstrated that the excavation of peat of depth greater than one metre has been minimised, as required by Scottish Planning Policy and Criterion H of the Council's Supplementary Guidance. The proposal is therefore contrary to South Ayrshire Council Local Development Plan policies 'Wind Energy – criterion H', 'Sustainable Development' and South Ayrshire Local Development Plan Supplementary Guidance on Wind Energy.

## Comment To Scottish Government

Should the Scottish Government be minded to grant this application, South Ayrshire Council requests that it be consulted on proposed conditions prior to the grant of the permission. In addition to the mitigation measures identified within the EIA Report that require to be conditioned alongside those conditions sought by consultees in response to the ECU, the following additional matters have been identified through the Council's internal assessment and consultation process. From a Council perspective, it is fundamental that these matters are considered and attached given that in most cases, the acceptability of the proposed development as set out by consultees in their response is predicated on the understanding that the conditions they have stipulated, would be included as mitigation. The topic areas which will require to be addressed through conditions are summarised below.

### **Roads and Transportation**

- i. agreement of standard of access junction construction onto public road
- ii. prior approval of access route for Abnormal Indivisible Loads & works required to facilitate passage of abnormal loads
- iii. provision and maintenance of junction visibility splays
- iv. prevention of discharge of water onto public roads
- v. minimum distance between turbines and edge of public road
- vi. responsibility and standards for any road widening required for passage of abnormal loads
- vii. inspection of public structures including Tairlaw Bridge
- viii. Construction Traffic Management Plan

## **Background Papers**

- 1. Application form plans and supporting documentation including the Planning Statement and the Environmental Impact Assessment Report and supplementary appendices and figures.**
- 2. Consultation responses to the ECU**
- 3. Representations to the ECU**
- 4. Scottish Planning Policy (SPP)**
- 5. Historic Environment Scotland Policy Statement**
- 6. Managing Change in the Historic Environment – Setting**
- 7. Planning Advice Note 2/2011 ‘Planning and Archaeology’**
- 8. Adopted South Ayrshire Council Local Development Plan**
- 9. Proposed South Ayrshire Local Development Plan 2**
- 10. South Ayrshire Council Supplementary Guidance: Wind Energy (Adopted 2015)**
- 11. South Ayrshire Landscape Wind Capacity Study 2018**
- 12. South Ayrshire Local Landscape Designations Review (2018)**
- 13. South Ayrshire Supplementary Guidance: Dark Sky Lighting (Adopted 2016)**
- 14. SNH Guidance – Siting and Design of Windfarms 2017, V3a**
- 15. Residential Visual Amenity Assessment Technical Guidance Note 2/19 (Landscape Institute)**

## **Person to Contact**

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