



REPORT BY PLACE DIRECTORATE
REGULATORY PANEL: 23 JUNE 2022

SUBJECT:	CONSULTATION UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 APPLICATION UNDER SECTION 36 OF ELECTRICITY ACT 1989 (AS AMENDED) FOR CONSTRUCTION AND OPERATION OF KNOCKCRONAL WINDFARM COMPRISING 9 WIND TURBINES (WITH COMBINED GENERATING CAPACITY OF 59.4 MW), PROPOSED ENERGY STORAGE FACILITY AND ASSOCIATED INFRASTRUCTURE. REF: 21/00993/DEEM
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1. Purpose of Report

- 1.1 South Ayrshire Council was consulted by the Scottish Government on 1st December 2021, under Section 36 of the Electricity Act 1989, on an application by "Knockcronal Wind Farm Ltd" for the erection of a windfarm and associated ancillary development at Knockcronal, U4 from C1 junction near Craig via Balbeg and Dalmorton to Palmullan Bridge, Straiton, 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.
- 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 nature of the proposals and the community interest.
- 1.4 The applicant has agreed to a time extension to 30th 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Planning Authority notifies the Scottish Ministers that they object to the application and their objection is not withdrawn, the Scottish Ministers shall cause a public inquiry to be held.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., 30th June 2022 in this case), then the Scottish Ministers may disregard the Council's 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 1st December 2021 Knockcronal Wind Farm 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 of 9 turbines with an anticipated height at tip of 200 metres for 6 of the turbines and 180 metres for the other 3 remaining turbines. 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. In this case, the combined energy capacity of the wind farm is 59.4 MW.
- 3.2 The Scottish Government formally consulted the Council on the proposed development in December 2021, with an original deadline for response on the application of 1st April 2022. Given the considerations and assessment required in association with this consultation, the Council made a request for the time period to respond to be extended to 30th June 2022 and this was granted.
- 3.3 The application is supported with an Environmental Impact Assessment (EIA) Report. Further details of the EIA Report are set out in proceeding sub-sections below.
- 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. The Regulatory Panel are asked to note that in the event that a planning authority objects to a Section 36 consultation, 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).
- 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 application that would require to be considered on its own merits in due course.

4. Development Proposal

4.1 Proposal

4.1.1 Approval under Section 36 of Electricity Act 1989 and deemed planning permission are sought for a windfarm development. Permission is sought for a period of 30 years of the operational phase of the windfarm. The proposed development comprises of the following principal components:

- 9 turbines in total comprising of 6 turbines up to 200 metre blade tip height (allocated as; T1, T2, T3, T7, T8 and T9) and 3 turbines up to 180 metre blade tip height (allocated as; T4, T5 and T6). Turbine foundations will be formed as part of each of the 9 turbines. The turbines themselves are to be concentrated predominantly on the southern portion of the application site.
- Site access and access tracks will include the use of existing tracks, the upgrade of existing tracks and the formation of new tracks and accesses. There are two access options to the proposed wind farm site from the west (access point located on the U27 known locally as “Deil’s Elbow”) and north (access point is located on the U31) and only one of these will be selected prior to construction. The new stretches of access track within the site boundary will be between approximately 5.7km and 6.2km in length depending on whether the western and northern accesses route option is progressed. Details of the proposed site access arrangements are set out in more detail further in this sub-section below.
- Watercourse crossings which will include the use of existing crossings, the upgrade (either replacing or extending) of existing crossings and the formation of new crossings. Up to 9 new watercourse crossings will be developed to support the development. 3 of these new watercourse crossings are required for the main development area, 6 new watercourse crossings would be required for the extension of the existing western forestry track and five new watercourse crossings would be required for the extension of the existing northern forestry track (depending on which access route is selected). Whilst the final designs of these may be subject to change, most will be either single span, half-moon arch or box culverts of varying scales and dimensions depending on the watercourse to which they relate. These are all to be designed as to maintain hydraulic connectivity and allow the free passage of fish and other wildlife beneath and those associated with the site access tracks will be capable of vehicle use.
- Crane hardstandings measuring approximately 195 metres long by 65 metres wide. These will comprise of crushed stone hardstanding, and these would remain in place for the lifetime of the proposed development to facilitate maintenance works.
- On-site substation and energy storage facility/compound to be situated close to the south-east corner of the application site. The applicant advises that the design of these are flexible and that they would be willing to use materials and cladding which match the local surroundings.

- Underground cabling which will feed and transport the electrical power produced by the individual turbines to the on-site substation and separate energy storage facility.
 - Borrow pits/borrow pit search areas (5 in total) as a source of rock to be used in the construction of the tracks, hardstandings and foundations. The site layout plan shows that one is proposed along each of the two access routes with the remainder dispersed through the main turbine development site area.
 - One permanent meteorological mast at 130 metres in height to measure wind speeds for the full operational life of the development. This is to be situated on the extreme southern boundary of the application site. For the avoidance of any doubt, this is separate to application 22/00242/APP which seeks planning permission for a temporary meteorological mast on the site in advance of this windfarm development.
 - One temporary construction compound area. This will comprise of an area of approximately 50 metres long by 100 metres wide and situated centrally within the application site. The applicant sets out the reason for its location is to minimise effects on sensitive habitats and deep peat and also for practical purposes. The compound will house a temporary portable cabin to be used as the main site office and a portable cabin alongside other ancillary features. On completion of construction, all structures are to be removed and the land reinstated to previous condition thereafter.
 - A gatehouse compound with the site layout at both of the potential proposed site accesses on the northern and western sides respectively. This will control access and traffic to the site, and it is the intention that only one will be delivered in line with the final site access route chosen.
- 4.1.2 The installed capacity of the wind farm is approximately 59MW. The applicant predicts that the wind farm will generate power 138 GWh per year which would generate sufficient electricity to supply the equivalent of 40,500 homes per annum.
- 4.1.3 A micro-siting allowance of up to 50 metres in all directions is being sought in respect of each turbine and its associated infrastructure in order to be able to address localised environmental sensitivities, unexpected ground conditions or technical issues. The EIA assesses the extent of the micro-siting allowance and demonstrates that this can be accommodated without any significant effect.
- 4.1.4 Further to the summary above, site access will be achieved from the B7023 via the A77 and connecting roads. As noted above, the applicant proposes to utilise existing forestry access tracks to reach the main body of the proposed development. Two specific forestry tracks have been identified and assessed on the western and northern side of the site respectively (termed as 'Western Access' and 'Northern Access' in the EIA Report), however only one of these routes will be utilised to support the development. Both of these have been included in the application site and red site boundary for the development with it being the applicant's intention to decide on the specific route once consent is obtained but prior to construction. The 'Western Access' would be taken directly from Hill Road to the south of the village of Cloyntie, using an upgraded forestry access junction, and the 'Northern Access' would comprise an upgraded forestry access junction which will be taken from an unclassified road approximately 2km to the south-west of Straiton. As part of this, it is worth noting that although both routes would be coming from different directions to the site, they would enter the main turbine development site at roughly the same location (near Sheepfold). Thereafter, either option would use an internal site track which feeds of either access with this connecting it to the remainder of the development on site.

- 4.1.5 The extent of woodland within the proposed development boundary is limited to parts of the two access routes being considered for the site. The woodland itself consists of a mixture of commercial forests and broadleaf woodlands of various ages. There would be a marginal loss of woodland area from utilising either of the proposed access routes and the extent of woodland loss would ultimately be dependent on the section of the preferred route and the final route alignment. The applicant has committed to providing compensatory planting as a means to mitigate any woodland loss.
- 4.1.6 The construction phase is expected to require approximately 18 months to complete, and the decommissioning phase is expected to require 12 months to complete following the end lifespan of the development. It is proposed that the hours of construction work be Monday to Friday 07:00 to 10:00 and 07:00 to 13:00 on Saturday and no working on Sunday.

4.2 Application Site

- 4.2.1 The site is located approximately 4.8km south of Straiton, 11.3km south-west of Dalmellington and 17.4km east of Girvan in South Ayrshire. The site comprises a main turbine development area of approximately 540 hectares of land consisting of upland moorland in the south and west of the site and farmland in the northeast with it also including the land associated with the two potential accesses as previously set out. The site gradually rises from 120 metres Above Ordnance Datum (AOD) in the north-east of the site to 315 metres AOD at Knockbuckle in the south-east of the site. A number of watercourses traverse the turbine development area including the Shiel Burn in the centre of the turbine development area, and the Palmullan Burn in the west, which flow into the Water of Girvan to the north of the site. Small areas of Ancient Woodland are present in the far northern section of the site with the remaining sections of undesignated woodland contained to the locations nearest the proposed accesses. Two residential properties lie within the proposed turbine development area, Linfairn, and Glenlinn Cottage. It is relevant to note that the application site, including all turbines and road access options are situated within the administrative boundary of South Ayrshire Council.
- 4.2.2 The application site is mostly situated within the 'Foothills with Forest and Wind Farms' Landscape Character Type (LCT), specifically subtype 17C as identified in the 2018 South Ayrshire Landscape Wind Capacity Study. A small part of the northern part of the application site is within the 'Intimate Pastoral Valley', LCT 13 although no turbines are proposed in this area. The first part of one of the access tracks also crosses the 'Middle Dale', which is LCT 12.
- 4.2.3 The surrounding land comprises open moorland to the east and north-east, as well as farmland with some scattered individual properties, with National Forest Estate commercial forest plantation to the north-west, west, south, and southeast. The Galloway Dark Sky Park buffer zone, Galloway Forest Park and the Galloway and Southern Ayrshire Biosphere are adjacent to the turbine development area boundary to the west, south and south-east, with the Dark Sky Park core area approximately 2.7km south of the nearest proposed wind turbine. To the south-east of the turbine development area lies the Galloway Forest Park International Bird Area with the Merrick Wild Land Area (WLA) approximately 5km from the site boundary in the same direction. Knockgardner Site of Special Scientific Interest (SSSI), designated for geological fossiliferous exposure, lies approximately 2.7 km northwest of the site. There are no listed buildings or designated built heritage features within the application site boundary.

4.3 Surrounding Windfarms & Windfarm Proposals:

- 4.3.1 There has been considerable interest in the locality for windfarm development with the planning history of the site and surrounding area and this is captured in more detail in Section 7 (Planning History) of this Panel report.
- 4.3.2 In the first instance, it is relevant to note that there are no operational and consented wind farm developments, within 5km of the proposed development site. There are however a number of proposed, consented, and operational wind farm developments within 10km of the proposed development site. Dersalloch Windfarm is the closest operational windfarm and is situated to the northeast of the application site approximately 8km in distance. This windfarm comprises of 23 turbines with a blade tip height up to 125 metres and a generating capacity of 69MW and is situated at land at Dersalloch Hill.
- 4.3.3 Two other windfarms are proposed in relatively close proximity to the application site, and this includes the developments associated with Carrick and Craiginmoddie Windfarms respectively. Carrick Windfarm is a current Section 36 application with South Ayrshire Council considering the proposed development as a consultee (Council Reference: 22/00094/DEEM). This application seeks permission to erect and operate 13 wind turbines (tip height of up to 200m), energy storage facility and associated infrastructure. This development is particularly relevant noting the application site directly neighbours the Knockcronal application site along the full southern boundary and part of the eastern and western boundary. Craiginmoddie Windfarm seeks permission for the erection of 14 turbines with battery storage and associated infrastructure and is situated to the west of the Knockcronal application site, beyond Carrick. South Ayrshire Council have recently finalised their position as a consultee to this Section 36 application and in February 2022 issued their objection to the Scottish Government Energy Consents unit (Council Reference: 21/00069/DEEM).
- 4.3.4 In addition to this, there are a number of other consented and operational windfarms in the wider area, and this includes Hadyard Hill Windfarm and Clauchrie Windfarm. Hadyard Hill Windfarm is operational and is situated a considerable distance to the southwest of this application site. This comprises of 52 turbines with blade tip heights between 100m and 110m. There has been a previous Section 36 application for an extension to Hadyard Hill comprising 22 turbines with a blade tip height of 126.5m. The Council objected to the proposal primarily on landscape grounds however the application was withdrawn prior to the commencement of a Public Inquiry. In terms of Clauchrie Windfarm, this is situated to the extreme southwest of the Knockcronal application site beyond the site for Carrick Windfarm. An application under S36 of the Electricity Act 1989 (as amended) for the construction and operation of Clauchrie Windfarm comprising 18 wind turbines (generating capacity of around 100MW) and proposed energy storage facility (storage capacity of up to 25MW) and associated infrastructure was submitted to the ECU in 2020. South Ayrshire Council objected to this application (Council Reference: 20/00055/DEEM) however the application was subsequent granted consent following a Public Inquiry.

5. Consultations

- 5.1 Consultations on this application are undertaken by the Scottish Government. The following consultation responses received by the Scottish Government Energy Consents Unit (ECU) are for noting only.
- 5.2 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 as part of the final recommendation.
- 5.3 Statutory Consultees
- 5.3.1 NatureScot (22/04/22) – **Objection**. The consultation response to the ECU is detailed however the grounds of the objection can be summarised through the developments adverse and significant impact on the Merrick Wild Land Area including the effect of night-time lighting for the turbines, required in connection with aviation safety.
- 5.3.2 Historic Environment Scotland (HES) (02/02/22) - **No objections**. HES agree with the conclusion of the EIA Report that none of the impacts on historic assets within their remit (e.g., nationally important heritage designations) are likely to be significant.
- 5.3.3 Scottish Water (11/02/22) – **No objections**. Scottish Water in their response includes a number of advisory points and other legislative references all of which relate to asset impact assessment, drinking water protected areas and surface water.
- 5.3.4 SEPA (24/03/22) – **No objections subject to conditions**. The initial consultation response from SEPA (dated 11/02/22) objected to the proposals as they had insufficient information to allow them to determine the extent and nature of potential impacts for factors within their remit and that they will need further information before being able to review their position. Their concerns related to impacts upon the water environment and proposals for water crossings and to culvert minor drains in the vicinity of wind turbines. Further information was submitted by the applicant and an addendum consultation response from SEPA was received in March 2022 which confirmed the withdrawal of their holding objection. In this response they reference the further information provided regarding the minor drains in the vicinity of wind turbines 1, 2, 6 and 7 as described in the EIA Report, and at the energy storage facility. Based on the information provided, SEPA confirmed that they accept that all of the drains are man-made features of no or little ecological value and are therefore content with the proposal to either block or reroute the channels. To ensure this occurs rather than culverting they requested a condition is applied which require the ditches in the vicinity of wind turbines 1, 2, 6 and 7 and at the energy storage facility to be sensitively rerouted or blocked prior to work commencing on the related infrastructure. This condition would require to be attached in addition to earlier conditions set out in the initial response.

5.4 Internal Scottish Government Advisers

- 5.4.1 Scottish Forestry (09/02/22) – **No objections subject to conditions.** Scottish Forestry acknowledge that whilst this windfarm development is to be situated on open ground, felling will be required as part of the development to allow road widening, swept path clearances and also laydown areas and compounds for the site access. Although Scottish Forestry note this to be a modest area overall (regardless of the final access route selected), they have confirmed that the applicant will require to provide compensatory planting to comply with Scottish Government policy on the Control of Woodland Removal (February 2009). As part of this, Scottish Forestry outline an expectation to be involved in the woodland creation plans and the compensatory planting programme should the development progress.
- 5.4.2 Transport Scotland (11/02/22) – **No objections subject to conditions.** Transport Scotland confirm that they are satisfied with the relevant chapters of the EIA and more broadly development in terms of environmental impacts on the trunk road network. As part of their consultation response, they have requested conditions relating to the prior approval of the proposed route for abnormal loads on the trunk road network, the prior approval of a Construction Traffic Management Plan and the need for any additional signing or temporary traffic control measures to be undertaken by a recognised QA traffic management consultant and be approved by Transport Scotland before it is put in place.
- 5.4.3 Crown Estate Scotland (21/02/22) – **No objections.** They advise that the assets of Crown Estate Scotland are not affected by this development.
- 5.4.4 Ironside Farrar (Peat Slide Risk Assessment) (12/04/22) – **No objections subject to further information.** The Energy Consents Unit commissioned Ironside Farrar Ltd to technically assess the Peat Landslide Hazard and Risk Assessment(s) (PLHRAs) submitted, with their response termed as a 'Stage 1 Checking Report'. The checking report considers whether or not adequate and appropriate field survey, peat sampling and analytical methods have been employed to provide a sound basis for assessing peat stability and the risk from peat landslides within the development envelope. The checking report provides a summary of findings and recommendations and the Energy Consents Unit issue a copy to the developer in accordance with the requirements of the Best Practice Guide (Scottish Government, 2017). The conclusion of their response is that whilst the peat assessment is sound, there are some key elements that are considered to be insufficiently robust to support the conclusions made and minor revisions/clarifications are required. Ironside Farrar firstly advise that further information in relation to landslide susceptibility mapping is needed with this suggesting that there are other areas of moderate likelihood that intersect or lie immediately adjacent to infrastructure. In addition to this, they suggest clarification should be sought as to why the marginally unstable areas highlighted in the FoS analysis that intersects with the proposed tracks at the northern end of the development has not been included in the consequence and risk assessment.

5.5 Non-Statutory Consultees

- 5.5.1 National Air Traffic Services (NATS) (08/02/22) – **Objection**. The response includes a report which covers their technical assessment of the proposed development impacts on radar, communication and navigational equipment and features. Whilst no impact is anticipated for NATS navigational aids or their radio communication equipment, NATS Safeguarding as part of the ‘En-route RADAR Technical Assessment’ have determined that the terrain screening available will not adequately attenuate the signal on the Lowther RADAR and therefore this development is likely to cause false primary plots to be generated. They also set out that a reduction in the RADAR’s probability of detection, for real aircraft is also anticipated. NATS Safeguarding conclude that the proposed development has been examined by technical and operational safeguarding teams and a technical impact is anticipated and this has been deemed to be unacceptable.
- 5.5.2 Glasgow Prestwick Airport (GPA) (09/02/22) – **Objection**. GPA set out concerns in relation to a number of aviation safety matters which centre around potential degradative effects of the wind turbines to affect the airports Communications, Navigation and Surveillance (CNS) equipment(s) both individually as a development but also as part of a cumulative effect with other similar developments. GPA issued a holding objection, advising that they will need further assessments to establish if these concerns can be appropriately mitigated.
- 5.5.3 Defence Infrastructure Organisation (Ministry of Defence) (17/12/21) – **No objections subject to conditions**. This consultee advises that the development site occupies Tactical Training Area 20T (TTA 20T) therefore in the interests of air safety, the Ministry of Defence (MoD) would request that the development be fitted with MoD accredited aviation safety lighting in accordance with the Civil Aviation Authority (CAA), Air Navigation Order 2016.
- 5.5.4 British Telecom (BT) (09/12/21) – **No objections**. BT have advised that they have studied this windfarm development with respect to EMC and related problems to BT point-to-point microwave radio links and the conclusion set out is that the development should not cause interference to BT’s current and presently planned radio network.
- 5.5.5 Royal Society for Protection of Birds (RSPB) (18/02/22) – **No objections**.
- 5.5.6 Ayrshire Rivers Trust (ART) (31/01/22) – **No objections subject to conditions**. This consultation response sets out a number of requirements including providing ART with final details/plans of water crossings, a monitoring programme for construction of water courses (to protect water environment from silt etc), a request to undertake macroinvertebrate surveys to complement existing surveys undertaken and a need to include additional legislative guidance into the EIA to ensure it is adhered to. Whilst they do not object, ART in their consultation response to the ECU also set out concerns with the Freshwater pearl mussel habitat survey, with species being scoped out with minimal assessment and no provision for pre-construction surveys despite the EIA appendices identifying records of such species in the upper reaches of the Water of Girvan. ART offer assistance to address the proposed baseline survey methodology and site locations for fish and freshwater pearl mussels to the ECU.
- 5.5.7 British Horse Society (13/12/21) – **No objections**. The response includes signposting and links to a number of studies and assessments undertaken which this consultee considers will assist to inform the development in terms of relevant equestrian matters.

- 5.5.8 The Coal Authority (TCA) (08/11/21) – **No objections**. TCA confirm that as the site falls outside the coalfield, they have no specific comments/observations to this application. Furthermore, TCA advise that it will not be necessary to consult with them on any future stages of the development.
- 5.5.9 Mountaineering Scotland (11/02/22) – **No objections**.
- 5.5.10 Visit Scotland (17/02/22) – **No objections**. VisitScotland provide advice regarding tourism considerations and the impact that any proliferation of windfarm developments may have on the local tourism industry, and therefore the local economy. VisitScotland strongly agree with the advice of the Scottish Government in that the importance of tourism impact statements should not be diminished, and that, for each site considered, an independent tourism impact assessment should be carried out. This assessment should be geographically sensitive and should consider the potential impact on any tourism offerings in the vicinity. Such an assessment was not submitted to the ECU as part of the application.
- 5.5.11 Scottish Rights of Way Society (ScotWays) (23/02/22) – **Holding objection**. This consultee identifies a number of paths which run through the application site and includes plans as part of their consultation response to the ECU which depict where and how these relate to the site subject of this proposed development. ScotWays outlined that all public recreational routes need to be protected when siting the internal tracks and also when deciding the access route into the proposed development site. While ScotWays consider that the Council's 'Core Path Management Plan' may address mitigation for core paths, they advise that this does not cover 'all public recreational routes' and does not directly detail and address the rights of way identified in their response. ScotWays advise that they have been unable to identify anything within the documentation that shows the mapped line of either right of way 'SKC7' or the 'Scottish Hill Track' route noted above and how these routes will be affected by this proposal. As it is therefore unclear whether the applicant has fully considered public recreational access, they state that their response should therefore be regarded as a holding objection pending the submission of further information to satisfy the concerns raised.

5.6 Community Councils

- 5.6.1 Barrhill Community Council (11/02/22) – **Objection**. Barrhill Community Council in their consultation response to the ECU set out through a number of sub-sections, the areas which form their grounds for objecting to the proposed development. These can be summarised as; a substantial visual impact and effect on surrounding landscape, cumulative effect of the development with other similar developments, encroachment on settlements, concerns for the implications of employment and tourism in the locality, impacts on the Galloway Forest Dark Sky Park and the lack of community engagement and involvement in the project to date.
- 5.6.2 Dailly Community Council (14/02/22) – **Objection**. Dailly Community Council provided a detailed consultation response to the ECU which is formatted in a series of chapters which convey their grounds of their objection. The reasons for their objection include concerns with regards to landscape and visual impacts, access implications, hydrology and water issues, leading edge erosion and associated impacts, turbine noise, socio-economic and tourism impacts and issues around decommissioning and recycling. More broadly, they also object on the basis that they consider there to be no established 'need' for the development.

6. Applicant's Supporting Information

- 6.1 The application submission to Scottish Ministers is accompanied by a range of supporting documentation. This includes an Environmental Impact Assessment Report (EIA Report), a Non-Technical Summary, a Planning Statement, a Proposal of Application Notice Report alongside a suite of accompanying plans, drawings, visualisations, and photomontages. The EIA Report produced in this case considers the following principal topics: landscape and visual, ecology, ornithology, noise and vibration, cultural heritage, hydrology, hydrogeology and geology, traffic, and transport, socio-economics, tourism and recreation, aviation and radar, telecommunications, shadow flicker and forestry. A number of technical appendices assessing different specific matters within these broader topic areas also supplementary the main EIA Report and chapters where relevant.

7. Planning History

- 7.1 Most notable in terms of planning history is the fact that this application site for Knockcronal Windfarm formed part of the wider Linfairn Windfarm development site which was submitted under Section 36 of the Electricity Act 1989 to the Scottish Ministers to operate a wind farm comprising 25 (reduced to 17) turbines, with a capacity of some 62.5 MW, and a blade tip height of up to 126.5m. South Ayrshire Council objected to this application (Council Reference: 13/01130/DEEM) as a consultee on the grounds of landscape, visual and cumulative impacts. The Section 36 application for Linfairn Windfarm was withdrawn by the applicant in 2018 prior to a Public Inquiry being held. This constitutes the last formal wind farm development submitted for the application site until now.
- 7.2 Immediately adjacent to the application site to the west and northwest lies Knockskae. A planning application for the erection of 11 turbines (126m tip height) at this site was refused by the Council in April 2017 (15/01216/APPM). Similar to the above, no further formal applications have been submitted for windfarm developments for the site. To the immediate south and part of the east and west of this application site is the proposed Carrick Windfarm development. As previously set out, this is a current application with South Ayrshire Council considering and assessing the proposals as a consultee to the process.
- 7.3 Beyond the above, there are other windfarms relevant which are within the general vicinity of the proposed development as alluded to in Section 4.3. This includes a mixture of operational, consented, and proposed developments including; Craiginmoddie, Clauchrie, Dersalloch and Hadyard Hill Windfarms however the planning history for each is not considered necessary to set out given the distances between these and the application site.

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 Adopted 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 a number of additional policies of relevance to the assessment of the planning application, which relate closely to the criteria on 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 that most of the current application and development site falls within a "Significant Protection Area". 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 ECU. 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 ECU00002181).

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 (including Residential 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 Architect 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 9 turbines, battery storage and other ancillary infrastructure lying to the south-west of Straiton. Six of the turbines would be 200m to blade tip with the three most easterly turbines 180m to blade tip. Lighting affixed to the turbines is required albeit the initial lighting scheme as proposed has been subject to change following a variation agreement by the Civil Aviation Authority (CAA) received by the applicant in May 2022. The Wind Farm Aviation Lighting and Mitigation Report (Technical Appendix 14.1) estimates that visible aviation lighting would operate at 10% luminous intensity (200 candela) for 98% of the time. Technical Appendix 14.1 concludes that further mitigation in the form of a radar activated system could be installed to limit the duration of lighting if allowed by the regulatory process.

9.5.3 There are two access options to the proposed wind farm site from the north and from the west and only one of these will be selected prior to construction. Both routes will involve upgrading of existing tracks and construction of new tracks and some upgrading is also likely to be needed to the public road access. Where the access route comprises narrow minor roads, this is likely to require construction of passing places and widening/straightening, which will necessitate removal of roadside vegetation, to accommodate turbine delivery vehicles.

Policy and Guidance in relation to Landscape and Visual Matters

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 relate to the relative narrowness of this upland landscape and its close proximity to adjacent smaller-scale and more sensitive valleys. In particular, this proposal on the northern and north-eastern sits partly within and also lies in close proximity to the upper Girvan valley which is classified as the Intimate Pastoral Valley LCT. This is a small-scale and diverse landscape of 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, a 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:

- The Intimate Pastoral Valley – upper Girvan LCT where the very large turbines of the proposal would form a dominant feature seen above the narrow upper Girvan valley between Straiton and Tairlaw. The proposal would overwhelm the small scale of this valley and significantly detract from its harmonious landcover and settlement pattern and secluded character.
- The Rugged Uplands, Lochs and Forests LCT where 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/Designations

9.5.6 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 the following LLAs:

- 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 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 this valued landscape.

Merrick Wild Land Area (WLA)

9.5.7 WLA's are the most extensive areas of high wildness in Scotland and are identified in National Planning Framework (NPF) 3 as a nationally important asset that merits strong protection. The Merrick WLA is important in comprising one of the very few remaining areas of undeveloped uplands in south Scotland mainland (3 remaining in total). It is a small WLA and one where many natural heritage and other designations and interests come together increasing its value, especially given the more modified landscapes surrounding it which feature extensive commercial forestry and wind energy development.

9.5.8 An assessment of the effects of the proposal on the Merrick WLA is contained in EIA Report Technical Appendix 6.2. 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 study area comprises the northern part of the WLA, which lies closer to the proposal and where the greatest extent of visibility is also likely to occur. The Wild Land Assessment considers 3 representative viewpoints within the study area from Cornish Hill, Loch Girvan Eye and Shalloch on Minnoch (EIA-R Viewpoints 8, 20 and 23). The Wild Land Assessment set out in the EIA Report concludes that significant effects would not arise on the Wild Land Qualities of the Merrick WLA.

- 9.5.9 Dersalloch Windfarm, located north of the WLA was built out since the WLA qualities were formed. The relevant assessment within the EIA Report considers Dersalloch as a key development in relation to the proposed wind farm as it is visible from much of the same northern area of the WLA. In their consultation response to the ECU, Nature Scot generally agree with the EIA Report in so far as accepting the role of Dersalloch on the Merrick WLA, which is read as part of the existing, clearly visible, middle-distance wind farm horizon. Notwithstanding this however, they consider that these existing operational turbines slightly reduce, but do not significantly weaken or erode the wild land qualities experienced on the northern tops, the eastern slopes of The Awful Hand, hills of the eastern range (e.g., from Hoodens Hill Ridge and Mullwharchar) or in those parts of the interior of the WLA from which they are visible. In terms of other wind farms, Nature Scot recognise that there are some to the north-east of the Merrick WLA, centred around 'Windy Standard cluster' (South Kyle is the closest (15+km and comprising 50 odd turbines) and will be most clearly visible). Notwithstanding this, they consider that whilst these are obvious human artefacts, they are largely too distant to impose noticeable upon the WLA qualities.
- 9.5.10 In assessing this part of the EIA Report, which indicates that Knockcronal and Dersalloch turbines will have a similar theoretical visibility from certain viewpoints, Nature Scot make a number of comparisons in their consultation response. This includes the fact that Knockcronal turbines are considerably closer (5.2km vs 8.9km) and taller (200m vs 125m) and in addition to this from viewpoints at Shalloch on Minnoch and Cornish Hill, the Knockcronal turbines would be read as up to three times as tall as the existing turbines at Dersalloch. Nature Scot also note that these turbines will have a considerably larger 'swept blade area' which will appear at least four times as great from these viewpoints and with this further intensifying the scale difference. In addition to all of this, Nature Scot consider that given the greater height and proximity of the Knockcronal turbines they will result in a marked amplification of the visual intrusion and influence of human artefacts and activity as currently experience on the northern summits of The Awful Hand (e.g., Shalloch on Minnoch and Cornish Hill), in the north-eastern hills (e.g., Craigmashenie) and on the summits in the eastern range of Dungeon Hills (e.g., Mullwharchar). Furthermore, from lower-lying northern interior (e.g., around Loch Girvan Eye), Nature Scot confirm they would often be the only visible turbines.
- 9.5.11 With regards to turbine lighting, Nature Scot consider that the significant effects would be intensified and exacerbated by the proposed turbine lighting which would strongly impact on how the WLA is experienced at night. Central to this is the fact that there are currently no turbines with lighting in the north-western view from the summits on The Awful Hand or from the summits of the eastern range. At present, at twilight, dusk and into the night, the existing wind farms and surrounding plantations recede into darkness. This results in a marked increase in the sense of sanctuary, remoteness, awe, and risk experienced on the hills and in the more remote, lower-lying interior of the WLA. When seen, even for a short period of time, Nature Scot consider that the turbine lights would substantially weaken the attributes and responses as they would be new, dominant, and incongruous focal points in the darkness, clearly representing contemporary, human artefacts and activity.

- 9.5.12 Nature Scot have objected to the proposal on the grounds of significant adverse effects on the Merrick WLA including WLA 01 Merrick, Qualities 1, 3 and 4. More specifically, they consider that the scale and location of the Knockcronal wind turbines would result in a distinct step change in the proximity, prominence, and visual intrusion of wind farm development upon the Merrick WLA. The perceived influence of human artefacts would significantly weaken the sense of remoteness and sense of sanctuary and would also diminish the sense of fulfilment of 'getting away from it all' which is associated with the physical challenge of walking the hills within the WLA. Secondly, they also object to the proposal due to the significant effects of turbine lighting. They highlight that as current regulations mean the proposed turbines would require night-time lighting, this would result in additional significant effects on the perception of wildness attributes at dusk and into the night and ultimately detract from the night time experience. The current night-time baseline for the Merrick WLA is very dark and as a result Nature Scot consider that there would be further and substantial weakening of the attributes and responses highlighted in WLA 01 Merrick, Qualities 1, 3 and 4.
- 9.5.13 In terms of the Council's considerations on the impact of the WLA, it is noted that the proposal would comprise much larger turbines than any operational turbines currently seen from the Merrick WLA. The turbines would lie approximately 5.2km from the northern boundary of the WLA boundary with visibility principally occurring from north-west slopes and hill summits around Shalloch on Minnoch, Craigmashenie and Cornish Hill, extending to approximately 9km from the proposed wind farm site. There would be visibility of the proposal elsewhere within the WLA (and outside the study area defined for the Wild Land Assessment) but this would be confined to small areas 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, Craigmashenie and Cornish Hill. The operational Dersalloch wind farm is the closest development seen from these northern hills within the WLA. This proposal would be significantly closer and comprise much larger turbines than the Dersalloch Windfarm in these views and would provide a marked change in the perceived degree of intrusion and encroachment on this relatively small WLA (Dersalloch Windfarm comprises 115/125m high turbines located 10.5km from Loch Girvan Eye (Viewpoint 23) while the proposal would comprise turbines between 180-200m lying 7km from this viewpoint). The Council consider 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, Carrick and Craiginmoddie Windfarms.
- 9.5.15 In terms of aviation lighting impacts, the Council consider that the presence of visible aviation lighting affixed to the turbines would both introduce and prolong these significant effects and the duration of the significant effects on the perception of wildness. In turn, it is the Council's consideration that the aviation lighting associated with the development would both diminish and significant effect the WLA experience sought by those who walk in the hills before dawn and those who intentionally stay on the hills or in the remote interior after dark, and overnight to encounter the sunset and/or dark skies within the Merrick WLA.

Galloway Dark Sky Park

- 9.5.16 The proposal lies adjacent to the outer boundary of the buffer zone of the Galloway Dark Sky Park (DSP). Although none of the 10 viewpoints promoted as locations for viewing the night sky within the DSP would be affected by the proposal, more remote elevated areas within the core of the DSP would have views of illuminated turbines. The lighting assessment set out in Appendix 6.4 considers in detail night-time views from Cornish Hill which lies in the core zone of the DSP. The assessment concludes that the effects of the 'worst case' 2000 candela lighting would be significant but that the reduced intensity 200 candela lighting would not be significant (despite both scenarios being judged to have the same magnitude of change). The EIA Report lighting assessment concludes that the proposal would not impede views of the night-time and effects on the DSP overall would not be significant.
- 9.5.17 The conclusion reached is that the effects of lighting from Cornish Hill would be significant and adverse in both the 2000 candela and 200 candela scenarios. Although the Council agree with the EIA Report Lighting Assessment that the numbers of receptors experiencing the night sky in the more remote parts of the DSP are likely to be low and that the proposal would not impede views of the night sky, the Council still consider that the experience of receptors who appreciate the very dark skies in views from both the core and buffer zones (and are additionally familiar with the aims of the DSP) would be diminished by this proposal.

Effects on Views

General visibility of the proposal

- 9.5.18 The dense forest and sparsely settled nature of the land immediately adjoining the proposal to the south and west and south-east would limit visual intrusion within approximately 5km in these directions. Clear visibility within 5km of the proposal would be principally concentrated to the east and north-east across the upper Girvan valley and the small hills which contain it between Straiton and Tairlaw. There would be very limited visibility from Straiton which is the closest settlement to the proposal.
- 9.5.19 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 a small part of the interior valley and loch basin lying to the east of the ridge between Cornish Hill and Shalloch on Minnoch. There would be relatively limited visibility from the south-west within the upper Stinchar valley with the turbines likely to result in minor intrusion on views. Intermittent visibility would occur from parts of the Girvan valley north-west of Straiton with landform and woodland providing screening in places.
- 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.

9.5.21 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, the Council consider that effects on views are generally unlikely to be significant. The Council consider 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 the visualisation from Craig (EIA Report Viewpoint 2) 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 and distract from views to the Landmark Hill of Big Hill of Genoch which forms a focus at the head of the valley. This proposal would also be seen together with the operational Dersalloch Windfarm in views from settlement and from Core Path SA47 Bennan Walk which is aligned in this valley as illustrated by the visualisations from the RVAA and from Additional Wirelines C-F.
- Significant adverse effects would arise from Craigenpower Hill where the walk up to the Colonel Hunter Blair Monument is a popular activity (EIA Report Viewpoint 4). 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.
- The high Carrick Hills including from the routes to, and the summits of Cornish Hill (EIA Report Viewpoint 20) and the Corbett of Shalloch on Minnoch (EIA Report Viewpoint 8). 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 as shown in EIA Report Viewpoint 23. The operational Dersalloch Windfarm is already prominent in these views, but this proposal would present a much more substantial intrusion as it would be located closer to these viewpoints and would comprise larger turbines. 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

- 9.5.22 Consultation responses from Glasgow Prestwick Airport, the MoD and NATS have referenced that the development should be fitted with accredited aviation safety lighting in accordance with Civil Aviation Authority (CAA), Air Navigation Order 2016. This request will have impacts on the night-time visibility of the development.
- 9.5.23 In terms of the aviation lighting impacts, the Council have considered the assessments provided included the Aviation Lighting Report (Appendix 14.1) which has been prepared on behalf of the applicant by 'Wind Power Aviation Consultants Ltd' alongside Appendix 6.4 'Visual Assessment of Visual Aviation Lighting' which forms part of the overall EIA Report. Both these assessments include consideration of the lighting requirements for the development, the operational requirements of the lighting alongside the opportunities for additional mitigation to offset landscape and visual impacts of the lighting itself. In terms of the mitigation, the assessments set out that should the regulatory process allow, the applicant would seek to deploy Aircraft Detection Lighting System (ADLS) which would allow the otherwise visible medium intensity turbine lights to be switched off for the vast majority of the time and activated only on those rare occasions in this location when an aircraft activates the system. The reports and assessment advise that a suitably worded planning condition will enable the future lighting effects to be mitigated to the extent of becoming almost non-existent.
- 9.5.24 Following review, the Council consider that visible aviation lighting affixed to the turbines would extend the duration of significant effects in close-by and more remote elevated views. The lighting assessment set out in EIA Report Appendix 6.4 concludes that night-time effects would be significant for representative Viewpoint 2 at Craig in the upper Girvan valley (both 2000 and 200 candela scenarios) and Figure 6.22e illustrates the likely nature of these effects. The lighting assessment also concludes a significant adverse effect on night-time views from Cornish Hill (Viewpoint 20) for the 2000 candela scenario. The Council agree that night-time effects on the upper Girvan valley would be significant and adverse and that the effects would be significant and adverse for both the 2000 and 200 candela scenarios from Cornish Hill. It is relevant to note that the applicant has provided an update to the Council in mid May 2022 to advise that the CAA have approved and endorsed a reduced lighting scheme from the one original proposed. More specifically, the amended lighting scheme would mean that only four of the nine turbines would require nacelle lights with no requirement for tower lights and that a reduction of nacelle intensity from 2000 to 200 candela would occur where the horizontal meteorological visibility in all directions from every turbine in the group is more than 5km. Whilst the Council acknowledges that the overall number of turbines required to be lit for some forms of lighting has reduced and intensity levels can also drop in certain circumstances, the aviation lighting that remains would also still be able to be seen from all of the notable and key viewpoints as set out and as such it is the Council's position that the variation lighting scheme does not materially affect the position in planning terms, with the concerns as set out still relevant.

9.5.25 The applicant proposes to install an Aircraft Detection Lighting System (ADLS) and this mitigation is set out in the relevant technical sub-section of the EIA. 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. As noted, Nature Scot have objected in terms of the effects of aviation lighting on the WLA. 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. With regards to the proposed mitigation set out in the reports and assessments provided as part of the EIA Report, it is unclear at this time whether an ADLS can be feasibly considered as tangible 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 current aviation policy and law do not allow for general legal implementation of ADLS. In light of the current uncertainty in relation to the mitigation measures which could potentially be utilised in relation to lighting, the Council therefore requires to adopt a precautionary approach on this and has considered the impact of the aviation lighting as proposed without applying significant weight to the ADLS as a form of directly implementable mitigation that could be deployed at this time offset the significant adverse visual impacts of the lighting associated with the development. This is summarised further in the conclusion of this section below.

Cumulative Landscape and Visual Effects with Other Consented and Proposed/Application Stage Wind Farms

9.5.26 Cumulative effects with operational wind farms are considered in the description of landscape and visual effects set out above. No consented wind farms would likely result in significant adverse cumulative effects with this proposal because of their distance. However, there are many wind farm developments at application stage lying close to this proposal with the Carrick Windfarm abutting this proposal and both schemes appearing as a single larger wind farm development. Significant adverse cumulative effects with application-stage wind farms would be likely to occur on:

- The character of the Rugged Uplands, Lochs and Forest LCT and the High Carrick Hills LLA where this proposal would be seen together with the application-stage Craiginmoddie, Carrick and Clauchrie Windfarm proposals.
- The character of the Intimate Pastoral Valley LCT of the upper Girvan where this proposal would be seen together with the proposed Carrick Windfarm.
- The Merrick WLA where this proposal would be seen simultaneously and sequentially with the Carrick, Craiginmoddie and Clauchrie Windfarms and together would significantly diminish the sense of wildness.
- Popular walking routes in the high Carrick Hills (including the northern section of the Awful Hand ridge), from Craigengower Hill near Straiton as well as from more informal walking routes around the Rowantree and Pinbreck Hills which lie on the southern edge of the Stinchar valley. This proposal would tend to be seen simultaneously with the Craiginmoddie and Carrick Windfarm proposals in these views.

- Views of the grouping of this proposal/Carrick and Craiginmoddie Windfarms seen sequentially with the Clauchrie Windfarm proposal from the Rowantree/Pinbreck hill routes and from the Awful Hand Ridge.
- Views from the minor road between Straiton and Newton Stewart where this proposal would be seen simultaneously with the Carrick Windfarm between Straiton and Stinchar Bridge and sequentially with the Clauchrie Windfarm further south on this road.

9.5.27 The combined effect of lighting proposed in all these applications would extend the duration of significant adverse effects on character and views in the above areas and particularly within the WLA and DSP where dark skies are particularly evident. Combined cumulative night-time views from settlement and roads within the upper Girvan valley (where this proposal would be seen with the Carrick turbines) would also be significant and adverse (not shown in the night-time visualisations for Viewpoint 2). The cumulative night-time visualisation for Viewpoint 20 at Cornish Hill illustrates the combined effect of lighting on this proposal and the application-stage Craiginmoddie and Carrick Windfarms (EIA Report Figure 6.40l and 6.40m).

Conclusions on Landscape and Visual Amenity Appraisal

9.5.28 This proposal would be located in the Foothills with Forest and Wind Farms Landscape Character Type (LCT), a sparsely settled landscape with a simple landform and landcover and a generally large scale, characteristics which can reduce susceptibility to large wind turbines. This LCT already accommodates the operational Assel Valley, Tralorg and Hadyard Hill Windfarms. While the Foothills with Forest and Wind Farms LCT has some key characteristics which can relate to wind farm development, it comprises a relatively narrow upland band lying close to the Stinchar and Girvan valleys and the high Carrick hills which are more sensitive to this form of development.

9.5.29 The most significant and adverse landscape and visual effects of this proposal would occur on the following:

- **The character of the Rugged Uplands with Lochs and the Intimate Pastoral Valley LCTs.**
- **The special qualities and character of the High Carrick Hills and the Water of Girvan Valley Local Landscape Areas which are contiguous with the above LCTs.**
- **The northern part of the Merrick Wild Land Area where this proposal would lie much closer, and comprise substantially larger and more prominent turbines, than the many operational wind farms located in South Ayrshire, Dumfries and Galloway and East Ayrshire seen more distantly from the WLA. The sense of remoteness, sanctuary and fulfilment associated with this part of the WLA would be diminished.**
- **Views from roads and footpaths within the upper Girvan valley between Straiton and Tairlaw, where this proposal would form a dominant and highly feature.**

- **Views from the popular ridges and summits of the high Carrick Hills, including from the Corbett of Shalloch on Minnoch and Cornish Hill and also from Craigengower Hill near Straiton. Views from more informal unpromoted walking routes around Rowantree and Pinbreck Hills would also be significantly affected.**

9.5.30 **Beyond this, lighting of turbines would extend the duration of significant adverse effects on views from the upper Girvan valley and from more elevated areas within the high Carrick Hills. Effects on the sense of wildness experienced within the Merrick WLA would be significantly affected for those who remain in the hills overnight. Significant cumulative landscape and visual effects would be associated with the combination of this proposal with the application-stage Clauchrie, Craiginmoddie and Carrick Windfarms.**

9.5.31 **The Council objects to this development proposal on the basis of landscape and visual grounds. It is not considered that the significant adverse landscape and visual effects of this proposal could be mitigated due to its inappropriate location. Notwithstanding this, it is considered that significant reduction in night-time effects could potentially be achieved through the installation of an Aviation Detection Lighting System (ADLS) which would limit the duration of visible lighting, however as set out above, it is unclear at this time the feasibility of ADLS as mitigation noting the current external and technical uncertainty surrounding it. In light of the current uncertainty in relation to lighting, the Council objects to the proposed development by reason that the applicant has not demonstrated that aviation lighting would not introduce intrusive, eye catching and prominent lights into an area important for its dark skies.**

9.5.32 **Consequently, it is considered that the proposed development is not in accordance with LDP Policy Wind Energy Criterion a) and Criterion b) and conflicts with LDP Policy Sustainable Development and LDP Policy Landscape Quality.** The proposal is also not in accordance with the Local Development Plan Supplementary Guidance for Wind Energy criterion A and B.

Effects on Tourism Attractions and Recreational Assets

9.5.33 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.

9.5.34 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 and as previously set out is adjacent to and in extremely close proximity to the boundary of both the Galloway Forest Park and Galloway 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.

9.5.35 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. Any significant adverse visual impacts would be contrary to the Local Development Plan objective to protect such assets from inappropriate development. 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 are adverse effects on the Galloway Dark Sky Park, High Carrick Hills Local Landscape Area, and the Water of Girvan Valley Local Landscape Area alongside a number of important views and viewpoints which form part of the tourism and recreational assets of the area. This includes views from roads and footpaths within the upper Girvan valley between Straiton and Tairlaw (where this proposal would be dominant and introduce an overwhelming and distracting feature in terms of scale) and views from the popular walking ridges and summits of the high Carrick Hills, including from the Corbett of Shalloch on Minnoch and Cornish Hill and also from Craigengower Hill (Colonel Hunter Blair monument) near Straiton. This proposal would also be seen together with the operational Dersalloch Windfarm in views from settlement and from Core Path SA47 Bannan Walk which is aligned in this valley as illustrated by the visualisations from the RVAA and from Additional Wirelines C-F. Views from more informal unpromoted but popular walking routes around Rowantree and Pinbreck Hills which lie to the west of Nick of the Balloch and to the southern edge of the Stinchar valley would also be significantly affected. Therefore, and as noted in the assessment of landscape and visual impact, it is concluded that a number of these tourism and recreational assets will experience adverse visual impact effects.

Conclusions on Tourism Attractions and Recreational Assets

9.5.36 **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.**

9.5.37 It should be noted that an assessment of the potential physical impacts and implications of the development proposals on active travel routes (including rights of way and core paths) which support tourism and recreation in this area has been undertaken separately in the proceeding sub-section below (e.g., in response to criteria c). 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 (including Residential 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

Noise

- 9.6.1 Volume 1, Chapter 10 of EIA Report (alongside associated appendices) considers construction, operational, decommissioning, and cumulative noise and vibration impacts associated with the proposed development. It is relevant to note that whilst the assessment of operational noise impacts is comprehensive and includes consideration of both the potential impacts of the turbines themselves and also other infrastructure features including the substation and energy storage facility, the latter was discounted due to a combination of the predicted noise output and the large separation distances from nearby receptors which would make its impact negligible. The focus of this element of the assessment therefore relates to the predicted operational noise levels of the turbines both as an isolated development but also in accumulation with other surrounding developments.
- 9.6.2 The Council's noise consultant, ACCON UK Limited, have been internally consulted to review the submitted documents relating to noise in order to inform Council considerations as whether the noise assessments have been carried out appropriately and to advise on the acceptability or otherwise of the proposals with respect of noise. In their response, ACCON has advised that the methodologies used in the noise chapter represent good practice and are in line with ETSUR-97 (operational noise) and the Institute of Acoustics (IOA) Good Practice Guidance for wind turbines. As part of this, they also endorse the approach to deriving cumulative noise limits and subsequent site-specific noise limits which they conclude are also in line with the same guidance referenced above. They ultimately agree with the noise assessment undertaken on the basis that predicted operational noise levels would not exceed limits set in accordance with planning policy and on the basis that the noise impacts from construction and decommissioning stage would not be significant subject to mitigation.
- 9.6.3 Based on the assessment and explanations provided in the EIA Report, ACCON have advised that there would be no unacceptable or significant impacts from noise on nearby receptors subject to conditions governing controls on construction and operational noise limits, the control of amplitude modulation and also vibration and air over-pressure from blasting. On the point of defining the noise limits, it is worth highlighting that ACCON as part of their assessment identified the fact that the applicant proposes two sets of noise limits for some properties, with lower limits derived from the Carrick baseline surveys. Following further review, ACCON advise that if the development was to be progressed and approved contrary to Council recommendation, the lower of the two limits should be selected and be secured through appropriately worded planning conditions as they see no logical reason not to set a lower limit where both are possible and achievable.

- 9.6.4 South Ayrshire Council Environmental Health Service have also reviewed the potential impacts of construction noise associated with the development. In their internal consultation response to the Planning Authority, they have not raised any objections to the assessment undertaken. If the application was to be approved, both ACCON and South Ayrshire Council Environmental Health Service would require conditions to be attached in the interests of residential amenity.

Shadow Flicker

- 9.6.5 Under certain conditions when the sun passes behind the rotors of a turbine, a shadow can be cast on neighbouring and surrounding properties. When the blades rotate a flicking on and off effect is created by the shadow, referred to as "Shadow Flicker". This can be a considerable nuisance to residents within nearby properties. Although there are no local or national UK mandatory requirements or criteria in relation to shadow effects caused by wind turbines, a report prepared for the Department of Energy and Climate Change suggests that a maximum of 30 hours of shadow flicker in a calendar year is a threshold for consideration, ideally with no longer than 30 minutes on any single occasion. The incidence of shadow flicker is considered only to be an issue of significant concern if the distance between the nearest dwelling and rotor blades is less than 10 times the diameter of those blades. Additional guidance states that in the UK the limit of the zone is between 130 degrees either side of north. The Council's Supplementary Guidance requires an assessment to be undertaken for all properties within 2.5km of a proposed development (this distance threshold should take into account any screening of turbines offered by topography).
- 9.6.6 The potential effects of shadow flicker occurring from the operational phase development have been considered in a bespoke assessment which has been presented as part of the EIA Report, Volume 1, Chapter 16. As part of this, shadow flicker assessments were undertaken at two properties identified within the study area (Linfairn and Knockskae), with both of these considered to represent residential receptors with the potential to experience flicker effects.
- 9.6.7 The conclusions of the calculations and modelling was that effects would be experienced for less than 8 hours per year and that these would be within the accepted guidelines and therefore not significant in EIA terms. It is relevant to note as part of this that the model did not take into consideration any local screening from vegetation, blinds or curtains or true window orientation relative to the turbines all of which could be mitigating factors and further reduce potential time that receptors are likely to experience shadow flicker over the course of the year. Fundamentally, these values are well within the accepted limits of shadow flicker, of either 30 minutes per day or less than 30 hours per year as set out in the paragraph above. South Ayrshire Council's Environmental Health Service in their internal consultation response do not raise concerns with regard to shadow flicker but recommend that a condition is imposed requiring an investigation by a suitable qualified person should a complaint regarding shadow flicker from the development (if approved an implemented) be received. Should a loss of amenity due to shadow flicker be confirmed as part of the mitigation, the condition would also require mitigation measures to be proposed and implemented to address the impact.

Residential Visual Amenity Assessment (RVAA)

- 9.6.8 The SAC Supplementary Guidance on Wind Energy states that the design process for wind farms should take into account local residential properties and the extent to which the proposal will be visible. The design process should seek to minimise significant visual effects on private properties. It states as a general rule, that a separation distance of 2km should be maintained between turbines and settlements and that an assessment of all residential properties within 2.5km from the proposed wind farms should be undertaken. The Residential Visual Amenity Assessment (RVAA) (Appendix 6.3) identifies 14 properties within a 2km radius boundary and these form part of the study area (Craigard, Craigenallie Cottage, Dalmorton Farm, Dalmorton House, 2 Dalmorton Cottage, Genoch, Genoch Cottage, Glenlinn Cottage, Knockskae, Linfairn, Palmullan Cottage, Tairlaw Toll Cottage, Tairlaw Toll House and Tallyminnoch). The RVAA thereafter considers these properties sequentially in relation to four technical steps with the requirement to continue the assessment against the relevant step for each property being dependent upon the level of impact identified in the earlier steps. Step 1 involves a definition of the study area and scope of the assessment, informed by the description of the proposed development, defining the study area extent and scope of the assessment with respect to the properties to be included. Step 2 requires an evaluation of baseline visual amenity at properties to be included having regard to the landscape and visual context and the proposed development. Step 3 provides an assessment of likely change to visual amenity of included properties in accordance with GLVIA 3 principles and processes. Step 4 if it is deemed necessary, involves a further assessment of predicted change to visual amenity of properties to be included forming a judgement with respect to the residential visual amenity threshold.
- 9.6.9 The RVAA identifies no residential properties within 1km and establishes that one of the 14 properties within the 2km study area is derelict (Dalmorton Cottage). Of the 13 remaining residential properties within the study area, the assessment concludes that they will all have potential views of the proposed development and detailed assessment sheets have been prepared for each of these properties. For properties Dalmorton Farm, Dalmorton House, Genoch Cottage, Linfairn and Tallyminnoch, the magnitude of change is assessed as between Medium-Low and Negligible and a Moderate-Minor to Minor level of 'Not Significant' effect has been recorded. For properties Craigard, Craigenallie Cottage, Genoch, Glenlinn Cottage, Palmullan Cottage, Tairlaw Toll Cottage and Tairlaw Toll House, the magnitude of change is assessed as between Medium and Medium-High and a Moderate-Major to Major Significant effect has been recorded. A High Magnitude of change has been predicted for Knockskae in the detailed assessment sheets as part of the Step 3 RVAA and is therefore also considered for a Step 4 Residential Visual Amenity Threshold assessment. The conclusion of this Step 4 assessment is that whilst a High Magnitude of change and Major Significant Effect is predicted, the nature of the visual impact at this property is not sufficiently adverse to be characterised as an overwhelming or overbearing effect on visual amenity. In conclusion, whilst the RVAA has assessed 8 of the 14 properties within the study area to have Significant visual effects, the position reached is that the proposed development will not lead to a residential visual amenity threshold being reached.

- 9.6.10 Inspection was undertaken by the Council and the landscape consultant of the properties considered in the RVAA through a series of physical site visits alongside an assessment of the RVAA. Observations during the site visit identified that whilst the RVAA described Tairlaw Toll Collage as a single storey property, the property had in fact been converted to accommodate an upper living area with views out towards the application site and development areas. Following on from this, an additional visualisation was provided by the applicant from Tairlaw Toll Cottage at the request of South Ayrshire Council with this additional wireline visualisation seeking to demonstrate the extent to which the proposed development would be visible the upper storey living area within the property itself.
- 9.6.11 The Council has taken into account Residential Visual Amenity Assessment Technical Guidance Note 2/19 in its consideration of the potential impacts on residential amenity arising from this development proposal. This is a matter for planning judgement taking into account a wide range of matters informed by the consideration of the assessments and the physical site visits undertaken by officers. The conclusion is that the Council is in agreement with the judgements reached in the RVAA with regard to effects on all properties with the exception of Tairlaw Toll Cottage where the Council consider that the magnitude of change incurred by the proposal is under-estimated and would be high. This is because up to 6 turbines within the proposal would be seen within 1.64km of this property from the principal garden terrace and the upper storey living area. The relatively confined views from the rear (and only garden ground) of the property across a narrow valley would increase the dominance of the turbines in the view and the lighting of turbines would extend the duration of this effect. The Council consider that this proposal would result in an overbearing cumulative effect and upon the residential visual amenity from Tairlaw Toll Cottage and thus pass the Residential Visual Amenity Threshold. The current Carrick Windfarm proposal would exacerbate this effect but would be seen slightly on the periphery of the main view unlike the Knockcronal turbines. For the reasons set out, it is not considered possible to mitigate the impact of the proposed development to an extent that would make it acceptable in planning terms.

Access, Traffic and Transport

- 9.6.12 Traffic and Transport has been assessed primarily in Volume 1, Chapter 12 of the EIA Report with associated supplementary technical appendices to inform this assessment. As previously outlined, there are two potential options by which the proposed development may be accessed from and for the purposes of the assessment in the EIA Report, these are termed as the 'Western Access' and the 'Northern Access'. Details and locations of these have been set out in detail in Section 4 of the report above.
- 9.6.13 The assessment recognises that the proposed development has the potential to affect the surrounding transport network during its construction with a temporary increase in traffic flows on the road network surrounding the site. The maximum traffic effect associated with the construction of the proposed development is predicated to occur in month eight of the construction programme. During this month, an average of 74 HGV movements are predicted per day and it is estimated that there would be a further 35 car and light van movements per day to transport construction works to and from the proposed development. The Transport Assessment, included as technical appendix 12.1, expands upon total predicted traffic levels in greater detail, stating that over the 18-month construction period there is estimated to be in total 14,202 trips, comprising 12,874 car and LGVs and 1,327 HGV movements.

- 9.6.14 Potential effects on the 'Western Access' and 'Northern Access' routes are also considered as part of the assessment. With regards to the 'Western Access', prior to the implementation of mitigation, minor, non-significant effects are likely expected along Hill Road due to the increase in total traffic. For the 'Northern Access' route, it was determined that, prior to the implementation of mitigation, moderate, significant effects could be expected along the unclassified road, approximately 2km to the southwest of Straiton due to the increase in total traffic, as well as along the B741 due to the increase in HGV traffic.
- 9.6.15 Notwithstanding the effects identified, the EIA Report assessment concludes that the transportation effects during the construction phase would be minor in nature due to this only being for a temporary timescale and the fact that it is transitory in nature. Any remaining impacts would be able to be addressed to manageable levels through the implementation of mitigation measures which include a formulated Construction Traffic Management Plan (CTMP), an Abnormal Load Transport Management Plan and a Core Path Management Plan. In addition to this, the applicant sets out a proposal to cover wear and tear of the public road however no specific details are provided for this in the report itself.
- 9.6.16 In terms of the operational phase of the proposed development, traffic levels as set out in the assessment are predicated to be one or two vehicles per week for maintenance purposes. Traffic levels during the decommissioning of the proposed development are also considered to be lower than during the construction phase as some elements may be left in situ and others broken up on site. The conclusion overall is that subject to the implementation of appropriate mitigation, no significant residual effects are anticipated in respect of traffic and transport issues. The potential effects identified are isolated to the construction phase only however as these are both temporary and reversible and also capable of being mitigated, they are deemed to be insignificant in the wider context.
- 9.6.17 As summarised earlier in the report, Transport Scotland (responsible Trunk Roads Authority) in their consultation response to the ECU confirm that they are satisfied with the development in terms of environmental impacts on the trunk road network. They conclude that they do not object to the proposed development, subject to conditions which could be addressed by the ECU.
- 9.6.18 The Council's Roads Authority, Ayrshire Roads Alliance (ARA) have been consulted internally by the Planning Authority and they have advised that they have no objections to the proposed development subject to the inclusion of a suite of conditions and advisory notes relating to various access, road, traffic, and construction activity matters. Most notable as part of their response is the fact that following review, they consider the U27 'Western Access' to be unsuitable for the transportation of wind turbine components. In response to this position, ARA have requested a specific condition which prohibits the use of the U27 'Western Access' for Abnormal Indivisible Loads and construction traffic over the 3-tonne weight limit being allowed to use this route.
- 9.6.19 In addition to this, ARA have also stipulated the requirement for a condition to both design and construct passing places on the U31 (between the junction with the B741 and the proposed 'Northern Site Access'). Equally, if the proposed 'Western Access' is to be pursued for use by construction traffic up to 3 tonnes, then ARA would also stipulate the need for a condition for both the design and construction of passing places on the U27 (between the junction with the B741 and the proposed western site access junction). In both cases, the design and placement of all passing places would require the prior written approval of ARA as Roads Authority and the condition would be worded as to ensure these were in place prior to the first construction trip.

Direct Impacts on Active Travel Access Routes/Recreation

- 9.6.20 This is an area of South Ayrshire which is a very popular with locals and visitors for walking, cycling and horse riding in the countryside. The area around Straiton is especially popular, and the income provided by visiting tourists helps to support its fragile rural economy. Around the area of the proposed windfarm site there are several core paths, a right of way and other (undesignated) routes through the forestry plantations, which are used by the public. Given this, the Council's Outdoor Access Officer has been internally consulted by the Planning Authority to consider the impacts upon tourism and in particular direct impacts on core path and right of way networks both within and surrounding the application site.
- 9.6.21 Following review, the Outdoor Access Officer has advised in their response that the windfarm proposal would have a significant effect on the recreational use of the area in certain circumstances and will directly affect and potentially obstruct the core path and right of way route that run through and in close proximity to the application site. They consider that this will be particularly apparent during the construction phase where it is likely that vehicular traffic into/out of the site will impact on the core path/ right of way route, as it follows along the single-track road past Balbeg and Dalmorton.
- 9.6.22 In response to this, they highlight a need for this to be considered to ensure that the route can be kept open and safe for public use and as part of this they advise that it is essential that the long distance right of way SKC7/core path SA47 which runs through the north western edge of the is not damaged or obstructed, and that any increased vehicular access along the road past Balbeg and Dalmorton Farm is managed in some way so that it does not adversely affect the public's use of the right of way/ core path. Chapter 12 of the EIA Report does capture these considerations as set out with the same comments being provided by this consultee at the earlier EIA Screening Opinion stage. In response to this, the EIA Report advises that a 'Core Path Management Plan' will be deployed, and this will contain on-site measures which will be delivered during the construction phase. Section 12.7.5 to 12.7.11 provides details of the onsite measures that would be in place through the Core Path Management Plan to ensure potential interactions between construction traffic and users of the core paths (including pedestrians, cyclists, and horse riders) are managed safely.
- 9.6.23 The Council's Outdoor Access Officer concludes that whilst they have identified that impacts on access will be significant, they do not recommend objecting on these grounds subject to mitigating measures being taken, if consent is granted, to protect and retain at the very least the identified core paths and rights of way in the area. They set out that this matter could be addressed within the Core Path Management Plan that the EIA Report commits to undertaking as mitigation. In addition to this, they also request that the developer seeks to improve the signage of the right of way/core path route to avoid walkers getting confused or lost, especially if additional access roads/tracks are constructed in these areas for the windfarm development. If the application were to be approved contrary to South Ayrshire Council recommendation, the Council would wish to be consulted further in order to recommend conditions which secure the above measures and improvements.
- 9.6.24 Whilst it is noted that ScotsWay have submitted a holding objection in their consultation response to the ECU on the basis of insufficient supporting information, given the specific grounds of their objection, it is not considered that this changes the position set out above from a planning perspective noting the Council's Outdoor Access Officers response. ScotsWay's holding objection would require to be considered and addressed by the ECU should this be warranted. On this basis, it is not considered that the proposed development would have an unacceptable or permanent impacts on core paths and rights of way subject to appropriate mitigation and improvements being made in line with their requests.

Conclusions on Communities Quality of Life and Amenity (including Residential Amenity)

9.6.25 It is recommended that the Council objects to the proposed Knockcronal Windfarm as it is considered that the proposed development will be overbearing in terms of the residential visual amenity impact to the property of Tairlaw Toll Cottage. The residential visual amenity of the property would be adversely affected to such a degree that the property would become undesirable places to live, and it is considered that 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.

9.6.26 It is considered that the impacts arising from the proposed Knockcronal Windfarm in relation to operational noise, shadow flicker, access, traffic and transport and active travel routes and recreation are generally acceptable subject to conditions and other forms of mitigation being in place where appropriate and required.

9.6.27 In light of the above, it is concluded that the proposed development is not in accordance with Local Development Plan Wind Energy Criterion c) and is in conflict with elements of LDP Policy Sustainable Development whilst being in accordance with LDP Policy Air, Noise and Light Pollution (in local residential context) and LDP Policy Land Use and Transportation.

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

Ecology and habitats

9.7.1 Volume 1, Chapter 8 of the EIA Report provides an assessment which seeks to establish the likely presence or likely absence of protected or notable ecological species, identify statutory and non-statutory designated sites for nature conservation in the vicinity of the proposed development and evaluates the overall conservation status of the land within the site boundary. Thereafter, the potential for the proposed development to have an adverse effect on designated sites and protected and notable ecological species and habitats is considered at construction, operational and decommissioning stage along with the setting out of committed mitigation measures where applicable and required. Opportunities for biodiversity enhancement are also outlined as part of this. The assessment in this chapter is informed by a desk study, and an extended Phase 1 habitat survey, NVC surveys, terrestrial mammal surveys, fish surveys and bat surveys which it considers enables the informed determination of the likely ecological effects of the proposed development to be set out and predicted.

- 9.7.2 The proposed development site is characterised by moorland and agricultural farmland which is typical of this region of Scotland. There are no formally designated nature conservation sites within the site boundary however there are seven nature conservation designated sites within 10km and with the closest being the Auchalton SSSI the (4.6km to the north-west) and the furthest being the Merrick Kells SAC (9.4KM to the south -east). There are two provisional Local Wildlife Sites (pLWS) within 2km of the proposed development, including Straiton Hills pLWS, located within the north-east part of the site boundary and River Stinchar (Milton to Black Hill) pLWS. The site is also within the Galloway and Southern Ayrshire Biosphere United Nations Educational, Scientific and Cultural Organisation (UNESCO) Reserve which is recognised as an internationally world class environment for people and nature albeit it has no specific ecological features. Firstly, the assessment concludes that none of the designated sites are considered to be affected by the proposed development due to the distance and intersecting landscape. The two provisional sites although much closer were also scoped out of further consideration in the assessment. Whilst the Straiton Hills pLWS is within the site for the proposed development, the layout has been designed to avoid this non statutory designation and therefore no direct effects are anticipated. For the River Stinchar (Milton to Black Hill) pLWS, this is located over 500m from the site and therefore no direct effects are anticipated either. Embedded mitigation, including the implementation of good practice construction measures and pollution prevention controls) are proposed in relation to both and these are considered to be adequate to avoid any potentially significant adverse indirect effects upon these provisional designations.
- 9.7.3 The ecology assessment also considers both the direct and in-direct loss of habitats and vegetation. It identifies that the total direct land take for the proposed development will be 16.57 ha, of which 0.55 ha are accounted for as small areas of blanket bog and wet modified bog (1.73ha) and wet dwarf shrub heath (0.32ha) which will be permanently lost due to the construction of the development. The remaining 16.02 ha of habitats to be directly lost comprise marshy grassland, acid grassland, neutral grassland, improved grassland, dense scrub, bracken, mosaic habitat and coniferous plantation woodland which have been scoped out of the assessment. The assessment establishes that there will be a 1% direct relative coverage loss of blanket bog habitat and 12% direct relative coverage loss of wet heath habitat from the proposed development, with the wet heath habitat restricted to isolated areas along the permanent access road. The direct and indirect loss of the above habitats in this assessment to be considered to constitute an impact of low/medium adverse magnitude, resulting in an effect of minor adverse significance, and which is not significant in the context of the EIA Regulations. NatureScot support the outline mitigation measures including the avoidance of main areas of Annex 1 habitats via design, the protection of Annex 1 habitats through good practice measures (such as pollution control measures and habitat restoration) and the Habitat Management Plan to include grassland management which will enhance grassland habitats on-site.

- 9.7.4 The EIA Report considers the potential effects of the proposed development on a number of species and following review establishes that the following species do not require further consideration subject to embedded mitigation (including the implementation of good practice construction measures and pre-construction surveys which were considered adequate to avoid any potentially significant adverse effects); amphibians and reptiles, invertebrates, fish, badgers, red squirrel, pine marten, otter and water vole. Whilst roosting bats had also been scoped out, foraging, and commuting bats had been scoped in due to records showing the presence of bat species within the study area. Potential construction effects on bats have been assessed and overall habitat losses for bats were considered not significant with disturbance caused by noise, lighting and dust generation during construction would be limited by good practice construction measures and therefore are considered not significant. The impact of bat collision risk mortality due to the proposed development was also considered not to be significant with embedded mitigation (in this case buffer zones from and 'standoff' distances to bat features in accordance with NatureScot guidance) considered adequate mitigation to avoid potentially significant operational mortality risks at most low-risk locations.
- 9.7.5 More broadly and in order to manage effects to predicted levels as set out in the assessment, standard mitigation is proposed. The measures adopted would include embedded mitigation in scheme design, good practice measures, i.e., production of a species protection plan (SPP), pre-clearance surveys, appointment of an Ecological Clerk of Works (ECoW) to oversee the implementation of the ecology mitigation measures, and habitat enhancement opportunities detailed in an outline habitat management plan to be implemented. Following the application of the standard mitigation, the assessment anticipates that there will be no significant adverse direct and/or indirect effects on ecological features as a result of the proposed development.
- 9.7.6 Overall, weight is given to the fact that NatureScot offer no objections to the proposed development in terms of direct ecology impacts including protected species and ecological receptors and designations. They recommend that should consent be granted, the works should be undertaken in accordance with the measures detailed in the EIA Report alongside recommendations and best practice guidance set out in their own consultation response to the ECU. This includes a suite of mitigation relating to the protection of species (such as bats, deer, and countryside), access during the construction stage and the decommissioning stage of development. In addition to this, whilst they confirm that there is no requirement for protected species licenses to be obtained prior to the commencement of development, given the mobile nature of species, and forecasting any time lapses between survey work and development work commencing, they advise that updated species surveys and a Species Protected Plan may need to be provided. The majority of these matters could be addressed as appropriately worded planning conditions by the ECU.

Ornithology

- 9.7.7 Volume 1, Chapter 7 of the EIA Report provides a detailed assessment of the potential impacts of the development on ornithology with this undertaken through combination of consultation feedback and dialogue with ornithological organisations, desktop studies (informed by comprehensive baseline data), and targeted ornithological field surveys (which took place over the period of a year; 2019 to 2020).
- 9.7.8 The results of the assessment were used to inform the identification of important ornithological features within and around the site and access roads with the primary findings being that the site supports an inconsequential record of those ornithology species considered 'Target Species' for the assessment. The conclusion set out in the assessment is that there would be no significant effects to either species of notable conservation value or associated habitat loss and that no ornithological features required to be scoped into the assessment. The same suite of standard mitigation as proposed in the ecology assessment has been included with the addition of a Breeding Bird Protection Plan (BBPP) which will be produced by the applicant and adhered to during the construction stage to reduce the effects of disturbance and displacement.
- 9.7.9 NatureScot is the statutory consultee where matters of ornithology are concerned. In this case and as set out in their consultation response to the ECU, they state that they agree that ornithological interests will not be directly or indirectly adversely impacted upon as a result of the proposed development and this includes the Ailsa Craig Special Protection Area (SPA) which is protected for a range of bird species, including lesser black-backed gulls. NatureScot support the mitigation and more specifically the proposals to follow a Breeding Bird Protection Plan (BBPP) which includes pre-construction breeding bird surveys and adherence to best practice disturbance buffers. They advise that this should be submitted to the ECU for approval prior to development commencing and that once approved, the plan should operate in each breeding season for the duration of the construction period.
- 9.7.10 The Council's Biodiversity and Rangers Services in their internal consultation response to the Planning Authority generally echo NatureScot's position as set out above, offering no objections on these grounds subject to mitigation being secured and delivered as part of the development. As part of the mitigation proposed however they advise that in addition to the species covered by NatureScot, they would want to include curlew and ground nesting upland waders to be covered by the Construction Breeding Bird Protection Plan. Furthermore, they note that the MBBS survey identified a curlew territory that appears to be between a turbine and borrow pit site. As curlew are red-listed species and lack of breeding success is one of the main contributing factors to their decline, they request specific mitigation to minimise disturbance to the territory.

Conclusions on Natural Heritage Assessment

- 9.7.11 **On balance, and reflecting the positions submitted by Nature Scot, together with the Council's own Biodiversity and Ranger Service it can be concluded that the proposed development is in accordance with LDP Policy Sustainable Development, LDP Policy Water Environment and LDP Policy Natural Heritage subject to conditions in relation to the mitigation set out within the EIA Report and following the relevant provided by these consultees.**

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

Built and Cultural Heritage and Archaeology Assessment

- 9.8.1 The EIA Report contains an assessment of the archaeology and cultural heritage assets (Volume 1, Chapter 11 alongside associated figures and appendices) and includes consideration of direct and indirect (including setting impacts) effects from the construction, operation, and decommissioning phases of the development alongside a consideration of any cumulative impacts from this proposed development in collaboration with other operation, consented or forthcoming developments. As required through the EIA Scoping Opinion process, the parameters of the assessment of this chapter of the EIA Report have been undertaken in line with defined study areas. The first of the 2 is 'The Inner Study Area' which is dictated by the red site boundary of the application site (e.g., the proposed development site including the two access options) and which identifies heritage assets that could receive direct effects arising from the construction of the proposed development and informing the archaeological potential of the site. The second of these is 'The Outer Study Area' which is a wider study area extending 10km from the outermost proposed turbine locations. This is used for the identification of cultural heritage assets whose settings may be affected by the proposed development (including cumulative effects). Views towards any assets identified as having settings sensitive to change have been considered, even where no visibility is predicted from the asset. As part of this, the wider ZTV was also assessed to identify any designated assets specifically requested by consultees, and/or beyond 10km that have settings that may be especially sensitive to the proposed development.

Built and Cultural Heritage and Archaeology Assessment

- 9.8.2 The EIA Report contains an assessment of the archaeology and cultural heritage assets (Volume 1, Chapter 11 alongside associated figures and appendices) and includes consideration of direct and indirect (including setting impacts) effects from the construction, operation, and decommissioning phases of the development alongside a consideration of any cumulative impacts from this proposed development in collaboration with other operation, consented or forthcoming developments. As required through the EIA Scoping Opinion process, the parameters of the assessment of this chapter of the EIA Report have been undertaken in line with defined study areas. The first of the 2 is 'The Inner Study Area' which is dictated by the red site boundary of the application site (e.g., the proposed development site including the two access options) and which identifies heritage assets that could receive direct effects arising from the construction of the proposed development and informing the archaeological potential of the site. The second of these is 'The Outer Study Area' which is a wider study area extending 10km from the outermost proposed turbine locations. This is used for the identification of cultural heritage assets whose settings may be affected by the proposed development (including cumulative effects). Views towards any assets identified as having settings sensitive to change have been considered, even where no visibility is predicted from the asset. As part of this, the wider ZTV was also assessed to identify any designated assets specifically requested by consultees, and/or beyond 10km that have settings that may be especially sensitive to the proposed development.
- 9.8.3 The baseline assessment has established that there are 34 known heritage assets within the 'Inner Study Area' with these either lying within the site or along the proposed access routes. There are no Scheduled Monuments or Listed Buildings within the 'Inner Study Area', and no part of the Inner Study Area falls within a Conservation Area, Inventory Garden and Designed Landscape or Inventory Historic Battlefield. With the exception of a burnt mound, likely to be of prehistoric date, and a natural mound that may have been used in the medieval period, the 34 heritage assets identified are all of post-medieval date and relate to pastoral farming practices. The burnt mound has been assessed to be of heritage value at a regional level and to be of medium sensitivity and a historic farmstead, recorded as a Non-Statutory Register (NSR) site potentially of national importance, has been assessed as a heritage asset of value at the national level and of high sensitivity. All other sites and features found considered in this assessment are categorised as either of heritage value at a local level, and of low sensitivity, or are of little or no intrinsic heritage value, and of negligible sensitivity.
- 9.8.4 The layout of the proposed development has been designed as far as possible to avoid direct effects on the identified heritage assets within the site. Direct impacts on four heritage assets, each of low sensitivity, have been identified as part of this assessment however this is to be balanced when taking account of the current land-use and historic landscape character of the site and its surroundings, the assessment summarises that the potential for further archaeological discoveries within the site is assessed as being low to moderate. The EIA Report advises that these effects would be offset through a programme of mitigation to recover any archaeological information that may be present at the affected locations. This mitigation would be deployed at the construction phase and include preservation and marking out of assets, archaeological investigation and recording, post-excavation assessment and reporting and construction guidelines and protocols. No mitigation is proposed or deemed necessary for the operational and decommissioning stages of the proposed development.

- 9.8.5 Within 10km of the proposed development there are ten Scheduled Monuments (three with predicted theoretical visibility of the proposed development); eight Category A Listed Buildings (one with predicted theoretical visibility); 65 Category B Listed Buildings (32 with predicted theoretical visibility); three Conservation Areas (all with some degree of predicted theoretical visibility); and four Inventory Gardens and Designed Landscapes (three with some degree of predicted theoretical visibility). Within 5 km of the proposed development there are 11 Non-Statutory Register (NSR) sites (eight with predicted theoretical visibility), one Non-Inventory Designed Landscapes (NIDL), and 20 Category C Listed Buildings (all with some degree of predicted theoretical visibility). 11.11.7 An effect of Moderate significance (significant in EIA terms) is predicted on the setting of Knockoner Cairn (HER Ref: 11669), a possible burial cairn determined by WoSAS to be potentially of national importance and assessed on that basis as being of high sensitivity and recorded in the HER as being potentially of national importance but of doubtful antiquity. The EIA Report sets out that the effect, which would not adversely affect or diminish the feature's cultural significance, would last for the duration of the operational phase of the proposed development individually and cumulatively with other operational, consented, or proposed developments. Taken in the context of existing operational wind farms in the wider landscape, a significant cumulative effect is predicted arising from the proposed development in combination with the proposed Carrick Wind Farm (current Section 36 application being considered by the ECU), the predicted effects would occur on the setting of Knockinculloch, enclosures on E slope of, 600 m NW of Glenalla (SM 3357). As is the case with the burial cairn, the EIA Report assesses that the combined developments would not however adversely affect the heritage value or cultural significance of the scheduled monument.
- 9.8.6 In terms of consultations, it is noted from review of Historic Environment Scotland's consultation response to the ECU that they agree with the conclusions of the EIA Report in that none of the heritage assets within their remit (e.g. world heritage sites, scheduled monuments and their setting, category A-listed buildings and their setting, and gardens and designed landscapes (GDLs) and battlefields in their respective inventories) are likely to receive significant adverse impacts as a result of the proposed development.
- 9.8.7 WoSAS have been internally consulted by the Planning Authority to inform considerations of the archaeological assessment, findings, and conclusions of the EIA Report. Whilst WoSAS in their response outline a general agreement with the cultural heritage chapter of the EIA Report in the feedback provided, they do highlight a number of areas as part of the assessment where they consider relevant matters have either not been assessed fully or the significance of the effects have been underplayed. This includes the general assumption built in the document that former farmsteads in the landscape area are (and would be) limited to lower valley sides and floors, with examples only a few km to the northeast of the site (Munteoch and Little Shalloch at 260 metres and 280 metres altitude respectively) not conforming to such an assumption. Alongside this, they explicitly mention the fact that the assessment does not benefit from the knowledge of features carbon-dated to the late Neolithic and Early Bronze Age which were found during topographically led mitigation work during the construction of Dersalloch Windfarm to the northeast of this site. Finally, WoSAS advise that there are three former NSR sites (Knockoner cairn, Knockoner farmstead, Dalmorton cairn) where they feel the assessment has slightly underplayed the significance of the effect of the proposals on their baseline setting in the sense that surely the simple act of appreciation of these rural sites in a rural setting would be significantly impacted.
- 9.8.8 Notwithstanding the observations and issues that they have identified as summarised above, WoSAS finalise their response by advising that as they ultimately do not disagree with the overall conclusions of the assessment, they opt to take a balanced approach and they do not consider any of the above constitute reasons to formally object or recommend

refusal. Beyond this final position, they welcome the intended mitigation of the appointment of an archaeological clerk of works and advise in their response that they look forward to agreeing a more extensive programme of mitigation than that suggested in the document to account for potential buried archaeology on site. To this end, they request a condition, if the proposed development is to be approved, relating to providing a programme of archaeological works and a written scheme of investigation to be agreed with them and thereafter be implemented and maintained during the construction phase of the proposed development.

Conclusions on Built and Cultural Heritage and Archaeology Assessment

- 9.8.9 **On balance and reflecting on the positions submitted by Historic Environment Scotland and WoSAS, it can be concluded that the proposed development is in accordance with LDP Policy Wind Energy Criterion e), LDP Policy Historic Environment and LDP Policy Archaeology provided conditions requiring an archaeological watching brief were to be imposed should consent be granted for the development.**

9.9 Criterion (f): 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 & Defence Matters

- 9.9.1 It is noted that at the time of writing, the Civil Aviation Authority (CAA) have not formally responded to the Scottish Ministers consultation request. Notwithstanding this, and as previously set out in earlier sub-sections above, the applicant has received formal and direct correspondence from the CAA (dated 6th May 2022) which confirms their lighting requirements. From experience of previous applications, it was understood that ordinarily the CAA requires that all obstacles at or above 150m above ground level are fitted with visible lighting and in the case of wind turbines these should be located on the nacelle. However, the letter dated from the 6th May 2022 indicates the CAA have agreed a variation to the lighting scheme with an overall reduction in the lighting provision required. This agreed variation would mean the following; medium intensity steady red (2000 candela) lights on the nacelles of turbines T01, T04, T06 and T09, a second 2000 candela light on the nacelles of the same turbines as backups should the main lights fail, the ability for lighting on these same turbines to be dimmed to 10% of peak intensity when the lowest visibility exceeds 5km (established by measuring devices) and infra-red lights to MoD specification installed on the nacelles of turbines T01, T02, T04, T05, T06, T07, T08 and T09. The CAA confirm that intermediate level 32 candela lights are not required to be fitted on the turbine towers.

- 9.9.2 Beyond the chapter of the EIA Report for Aviation and Radar impacts (Chapter 14), an assessment of these specific CAA matters is set out through the Aviation Lighting Report (Appendix 14.1) which has been prepared on behalf of the applicant by 'Wind Power Aviation Consultants Ltd' and which forms part of the overall EIA Report (this has been updated to reflect CAA correspondence received in May 2022). This accompanying report is divided into two parts; Part 1 proposes a lighting design that is compliant with existing and draft (but soon to be ratified) regulations and guidance contained within as discussed with the CAA and the MoD. It explains the rationale behind the lighting design taking into account the requirement to minimise the number of turbines illuminated with aviation obstruction lights whilst maintaining flight safety and provides a detailed assessment of the brilliance of the lighting when viewed from a number of viewpoints provided by the LVIA consultant after consultation with the relevant stakeholders including NatureScot and the Local Planning Authority. Part 2 of the report identifies and seeks to explain those mitigation measures that can be utilised to minimise the environmental effect of the lights including an assessment of the historical meteorological data from which to predict the luminous intensity requirements for the lights. In summary, the additional report explores the requirements for both visible, CAA approved aviation lighting and MoD approved Infra-Red lighting for the Knockcraon Windfarm and establishes that CAA/ANO Red lights and MoD IR lights will be required. As previously set out, the report also assesses the brilliance of lights that will be visible alongside recommendation mitigation to reduce the overall presence and visual impact of the lighting required.
- 9.9.3 The MoD advise in their consultation response to the ECU that the development site occupies Tactical Training Area 20T (TTA 20T) with the turbines in these locations having the potential to introduce a physical obstruction to low flying aircraft. As a result of this and in the interests of air safety, they have requested that the turbines subject to the development be fitted with MoD accredited aviation safety lighting in accordance with the CAA, Air Navigation Order 2016. The applicant has gestured to these requests in the Aviation Lighting Report and has updated the lighting scheme to align with the approach accepted by the CAA in recent correspondence.
- 9.9.4 The consultation response from NATS at the time of writing this report objects to the proposal. NATs en-route Ltd is responsible for the safe and expeditious movement in the en-route phase of flight for aircraft operating in the controlled airspace in the UK. They operate a network of radar, communication systems and navigational aids to carry out its functions and has a specific duty for safeguarding the relevant infrastructure to ensure its integrity to provide the required services to Air Traffic Control (ATC). As wind farms pose the potential to compromise all of these features, NATS require to assess the potential impacts and propose mitigation if it is appropriate to do so and have assessed the proposed development in this context. The response includes a report which covers their technical assessment of the proposed developments potential impacts on radar, communication and navigational equipment and features. In relation to the Lowther Hill Radar, NATS technical assessment advises that the terrain screening available will not adequately attenuate the signal and therefore predicts that this development is likely to cause false primary plots to be generated. A reduction in the RADAR's probability of detection, for real aircraft, is also anticipated. With regards to the other two technical assessments, NATs advise that no impact is anticipated for navigational aids or their radio communication equipment in relation to the proposed developments. NATs conclude that the proposed development has been examined by technical and operational safeguarding teams and a technical impact is anticipated, this has been deemed to be unacceptable (e.g., the impact on the Lowther Hill Radar).

- 9.9.5 The consultation response issued by Glasgow Prestwick Airport (GPA) to the ECU also object to the proposed development and states a requirement to maintain this objection until such time as certain aviation safety matters are addressed. The consultation response comprises of a number of assessments with these sub-divided into topics which comprise of the following matters: Aviation Lighting, Primary Surveillance Radar (PSR), Instrument Flight Procedures (IFP's), Technical Safeguarding – VHF/UHF Communication Equipment(s), Secondary Surveillance Radar (SSR), ATC Operational Impact Assessment and Cumulative Impact before drawing these matters together in a conclusion.
- 9.9.6 Firstly, in terms of Aviation Lighting, GPA have advised at the time of consultant that they were content with the lighting design with the drafting lighting scheme and layout depicted in the Aviation Lighting Report which forms part of the wider EIA Report. GPA have caveated their position on this by advising of a need for them to be further consulted if an Aircraft Detention Lighting System (ADLS) dependent upon Electronic Conspicuity Equipment is considered or if overall lighting scheme and layout as set out in the Aviation Lighting Report is alternated. It is assumed that they would require to re-consulted given the variations to the lighting scheme agreed by the CAA in May 2022. In relation to the Primary Surveillance Radar considerations, GPA advises that all 9 turbines will be visible to GPA's primary radars and will generate unacceptable radar clutter that will require to be mitigated for the lifetime of the development. In line with their aviation safeguarding process, GPA set out that it will be necessary for further detailed radar modelling assessments/flight trials be undertaken to confirm the exact number of turbines visible to GPA primary radars – and whether the clutter (and other degravative effects resulting – i.e., shadowing, loss of base of radar cover, etc.) from the visible turbines can be mitigated (via an appropriate radar technology solution and associated mitigation agreement). In response to Instrument Flight Procedures (IFP's) and Technical Safeguarding – VHF/UHF Communication Equipment(s) considerations, GPA conclude that further assessment is likely to be required to ensure protection of relevant airport features. Firstly, given the proposed maximum tip height (200m) of the turbines, GPA request that the developer engages with them to agree who undertakes the IFP Assessment to establish fully if the proposed development is likely to have any impact on our published Instrument Flight Procedures (IFP's) – both conventional and RNAV/RNP IFP's as published in the UK Aeronautical Information Publication (AIP) for GPA (EGPK). Secondly, GPA preliminary analysis indicates it may also be necessary to conduct a detailed Technical Safeguarding Assessment in respect of the protection of the Airport's VHF/UHF Radio Navigation Equipment(s).

- 9.9.7 GPA also have concerns that the cumulative impact and proliferation of windfarms in the vicinity of this proposed development may have an impact on the low-level coverage that GPA currently enjoys from the SSR radar data feed it receives from the NATS Lowther Hill SSR. These concerns will require to be considered as part of the overall technical safeguarding assessment. A preliminary ATC Operational Assessment indicates that while this proposed development lies outside of Prestwick Airport's Controlled Airspace (CAS), it is in an area where GPA regularly provide an air traffic service, and as such if some (or all) of the turbines are confirmed visible to their primary radar(s) then mitigation will be required, together with a review of any impact on our flight procedures or aeronautical charts as published in the UK Aeronautical Information Publication (AIP) for Prestwick Airport (EGPK). GPA also raises concerns in respect of the cumulative impact, due to other operational, consented and proposed windfarms in the vicinity of the proposed Knockcronal Windfarm and the impact that this cumulative proliferation of windfarms may have on the Airports Communications, Navigation and Surveillance equipment(s), together with the potential for a resulting ATC operational impact - in having such a dense cluster of windfarms in the vicinity of the aerodrome in an area of airspace where GPA ATC regularly provide an air traffic service to aircraft.
- 9.9.8 Current guidance (SG Wind Energy) requires developers to demonstrate agreement between the developer and airport operators that a technological or other mitigation solution is in place which demonstrates their development would not threaten the current operation of the airport or the expansion aspirations sought by the Council and Government. The LDP Policy on Wind Energy (and the supporting SG) is clear where it states that the Council will only support proposals if "they do not adversely affect aviation".
- 9.9.9 An update was sought by the Council from the applicant in late April 2022 to establish if the earlier objection as set out above had progressed and/or been addressed in any way by the applicant or the appointed agents/consultants. A response was provided to the Council which advised that the applicant and their advisers at this time continue to engage with Glasgow Prestwick Airport and NATS following their objections. As part of the correspondence received by the Council, the applicant sets out that in March 2022 they have made explicit their interest in participating in forthcoming flight trails for new technologies noting the main aviation issues are due to Glasgow Prestwick Airport's Aircraft Traffic Control System and NATS' Lowther Hill radar. They concluded by advising that the applicant and their consultants are confident both issues are mitigatable, with different solutions under review for each system/radar. Notwithstanding this update, the holding objection from GPA remains in place at the time of writing this report, with no re-consultation available on the ECU website.

Conclusions on Aviation and Defence Matters

- 9.9.10 **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.**
- 9.9.11 **Considering the above, including the current position of GPA, it is evident that there a number of matters which remain outstanding in relation to potential radar impacts, and it is for this reason that they as a consultee have had to object to the ECU at this time. Notwithstanding the ongoing discussions and dialogue between the applicant, their adviser and GPA, given GPA's formalised position at this time as a consultee (e.g., a holding objection) remains unchanged and in consideration of the requirements of the LDP policy as set out, the Council objects to this development proposal.**
- 9.9.12 **The basis for this is that the developer/applicant has not demonstrated at the time of consideration of the application that that their development does not impinge and/or compromise on the current operation of GPA. This includes the need for both further information and assessments and the need to establish and have in place an agreed radar mitigation following on from this which would be available and maintained for the lifetime of this windfarm development. As a result, the proposal is therefore contrary to the relevant aspect of the policy and Supplementary Guidance 'Wind Energy – Criterion f) as detailed above.**

Broadcasting and Telecommunications

- 9.9.13 Volume 1, Chapter 14 of the EIA Report provides a full assessment of the potential effects on aviation, radar, and telecommunication infrastructure of the proposed development. Alongside the consideration of the relevant telecommunications legislation, policy, and guidelines frameworks to inform consideration, the bulk of this assessment involves consultation with statutory/non-statutory consultees and stakeholders to identify the presence of any potential telecommunications features and links. A summary of consultations undertaken, and the responses provided has been included in a table as part of this chapter and it is evident from review of the feedback received that there are no telecommunication links present which would require further consideration in relation to the proposed development.
- 9.9.14 This chapter concludes this particular assessment by confirming that due to the lack of presence of telecommunication features and links, there will be no effects on telecommunications from the construction, operation or decommissioning of the proposed development and that as a result no mitigation measures is deemed necessary. As part of this, the conclusion goes on to confirm that as proposed development will not impact any telecommunication links directly, the potential for cumulative effects on telecommunication links from this development in conjunction with other developments is also not relevant.
- 9.9.15 It is noted that the relevant consultation responses received from the ECU do not raise any issues of concern in this regard and this includes the response provided by BT.

Cumulative Effects

Landscape and Visual Impact and Natural, Built and Cultural Heritage

9.9.16 The cumulative landscape and visual impacts resulting from the proposal and nearby operational, consented, and proposed wind farms are set out earlier in this report and it is concluded that there will be adverse cumulative Landscape and Visual effects associated with this proposal.

Residential Amenity (Noise)

9.9.17 As previously set out, the applicant's noise impact assessment as part of the EIA Report found that operational noise levels from the proposed development would meet the criteria set out in ETSU-R-97, which provides for acceptable levels of protection to residents. ACCON and the Council's Environmental Health Service offered no objections to the assessment and findings considered, subject to conditions.

9.9.18 The cumulative noise assessment which forms part of this overall chapter of the EIA Report demonstrates consideration of the combined effect of wind turbine noise from the proposed development along with Dersalloch Windfarm (operational), Hadyard Hill Windfarm (operational), Carrick Windfarm (proposed) and Craiginmoddie Windfarm (proposed). The conclusions of the assessment indicates that the total cumulative noise levels would again meet noise limits (as set by national guidance) at the nearest noise sensitive receptors and that operational turbine noise from the development would not be significant in EIA terms. ACCON and the Council's Environmental Health Service have raised no issues in this regard and therefore cumulative noise effects are therefore acceptable.

Conclusions on Cumulative Impacts Assessment

9.9.19 On balance, it is considered that the proposed development will have an unacceptable cumulative impact in relation to landscape and visual impact, however no other cumulative impacts have been identified.

Other Matters

Forestry

9.9.20 The extent of woodland within the proposed development boundary is predominantly limited to parts of the two access routes to the site. The forestry in these areas consists of a mixture of commercial forests and broadleaf woodlands of various ages. As the main windfarm is to be situated on predominantly open ground, felling will only be required as part of the development to allow road widening, swept path clearances and also laydown areas and compound for the site access. The extent of woodland loss would ultimately be dependent on the selection of the preferred route and the final route alignment.

9.9.21 As part of the forestry assessment in the EIA Report (Volume 4 Appendix 3.2), the assessment considers the loss of forestry and noting the isolated locations and limited extent of the felling works required to enable the proposed development, it concludes that impacts would not be significant. To mitigate the woodland loss, the EIA Report sets out the applicant's commitment to providing compensatory planting and the extent, location and composition of such planting would be agreed with Scottish Forestry, taking into account any revision to the felling and restocking plans prior to the commencement of operation.

9.9.22 From review of Scottish Forestry (SF) consultation response to the ECU, it is evident that they do not object to the proposals subject to conditions. Although Scottish Forestry note the felling requirements to constitute a modest area overall (and this being regardless of the final access route selected), they have confirmed that the applicant would require to provide compensatory planting to comply with Scottish Government policy on woodland removal. As part of this, and if permission was granted, Scottish Forestry outline an expectation to be involved in the woodland creation plans and the compensatory planting programme to be developed as alluded to in the EIA Report. This could reasonably be addressed through conditions by the ECU.

Peat

9.9.23 The Peat Landslide Hazard and Risk Assessment submitted by the applicant has been assessed by Ironside Farrar consultants on behalf of the ECU. In their assessment they request further information, and a submission has been made by the applicant to seek to address this (dated 26th April 2022). Whilst Ironside Farrar consultants have not provided an addendum response as yet, this would be addressed by the ECU and Ironside Farrar separately.

9.9.24 NatureScot in their consultation response to the ECU also provide an assessment of carbon rich soils, deep peat, and priority peatland habitat. They confirm as part of their review that the development will not raise issues of national interest in respect of its impact on peatland and that there are opportunities for habitat enhancement which would benefit the peatland resource. They go on to set out recommendations and mitigation measures in the interests of ensuring that the impact on peatland habitats would be minimised to the fullest possible extent and these matters could be addressed through conditions by the ECU.

9.9.25 SEPA have advised in their consultation response to the ECU that they have considered the peat survey information provided within the EIA Report and as part of this they are satisfied with the approach and commitment that areas of deep peat are to be avoided. They also provide comments on the Chapter 8 of the EIA Report including sub-sections on Peat Disturbance and Peat Slide as well as the Outline Peat Management Plan (PMP) and note the findings of this. They go on to confirm that suitable mitigation (in this case, the use of floating tracks between turbine 7 and turbine 8) is proposed to avoid damage to more sensitive areas. Once again this could be addressed through conditions by the ECU.

9.9.26 The PMP sets out that a total volume of peat to be excavated is 6,502m³ and this is to be reused in specific borrow pits where appropriate (adjacent to peat 0.5m in thickness) for access tracks. Peat re-use in tracks is restricted to where peat is currently is welcomed by SEPA. They summarise by stating that on the basis of the investigations undertaken and the commitment to tie in the peat in borrow pits into existing peatland, they have no concerns with the proposals in this regard. Notwithstanding this, to ensure the strategy remains appropriate and accords with good practice guidance, SEPA request a condition requiring the preparation and submission of an updated PMP for approval to the determining authority, in consultation with SEPA, prior to commencement of the development. They expect that this should also demonstrate how micro siting and other measures can be used to further minimise peat habitat disturbance.

9.9.27 In addition to the assessment above, consideration has been given to the potential effects associated with the construction and operation of both access route options noting that it is not certain at this stage which route will be used. The results in some aspects including the estimated peat excavation volumes are over-stated, given the numbers reflected in the assessment are based on cumulated figures for both access routes and a qualitative review has identified that the level of impacts and significance of effects would not be materially different depending on which route is selected and the conclusion of the assessment has also identified no significant residual effects when considering both access routes combined.

Private Water Supplies (PWS)

9.9.28 Chapter 9 of the EIA Report considers Private Water Supplies (PWS) and a bespoke PWS Assessment is provided through Technical Appendix 9.6 with this being a request at EIA Scoping Opinion stage by South Ayrshire Council. This assessment undertaken identifies one private water supply (PWS) catchment (associated with Glenalla Farm) which is considered as a sensitive receptor due to it being potentially connected to the existing western access track.

9.9.29 The sensitivity of the Glenalla Farm PWS abstraction catchment is defined as very high through the assessment given it is used as a potable supply. The magnitude of potential impacts on water quality due to sedimentation and erosion during construction are however deemed to be low for the section of access track widening due to minimal activities, no direct pathway being present and the distance between the source and receptor. Therefore, the significance of effect on this identified PWS is established as being minor/moderate and not significant in EIA terms.

9.9.30 South Ayrshire Council Environmental Health Service have reviewed this assessment to inform overall Council considerations on these matters. In the first instance, it is relevant to note that in their internal response, they raise no objections with the methodology, assessment, and the conclusions of the PWS assessments undertaken.

9.9.31 As part of their response, they confirm that they have undertaken a joint risk assessment visit with the principal consultants for the development to the PWS around the marked boundary and within the marked boundary in March 2021 (following the submission of the EIA Scoping Opinion for the proposed development). Given they were able carry out the risk assessments together, they advised that they were also able to agree at this early stage which PWS would require protection through mitigation. They go on to advise however that at this time in March 2021, there was no clear indication of the access road chosen to bring the delivery of component parts and construction material to the site entrance near Dyke Farm and that mitigation would need to be revisited and finalised once the layout was fixed.

9.9.32 The current application does provide formalised and definitive details of the proposed access arrangements albeit that two potential alternative access routes are considered. The Council's Environmental Health Service have advised that if the 'Western Access' route is progressed, mitigation will be required to the PWS for Glenalla Farm. This is due to the fact that Glenalla sits below one of the proposed entrance access roads to the site and the conditions relating to Glenalla will be to protect the very large, wide, diffuse catchment area from which the water for human consumption is drawn.

- 9.9.33 Beyond the safeguarding requirements for Glenalla specifically, the Council's Environmental Health Service point out that on the approach public road from Crosshill to either Glenalla or Dyke Farm areas, there are other PWS which may have their supply lines or infrastructure, or even their catchments which could potentially be affected through necessary upgrades to the roads, to enable the windfarm deliveries to take place. They anticipate that this could be in the form of road widening, strengthening, or creation of new corners or sections and given this, they have requested to apply the conditions relating to PWS as a measure to protect the continued quality and quantity.
- 9.9.34 The condition proposed by Environmental Health (should consent be granted) is presented as one condition with four separate components all of which stipulate different relatable requirements (termed 1a), b), c) and d)). Part 1a) relates to a requirement for a Water Management Plan specific to Glenalla covering water control and the means of drainage from all hard surfaces and structures within the site and including details for the means of protecting surface water/ground water and controlling surface water run-off. Part 1b) requires a site-specific hydrogeological report (including a field study and a conceptual site model) which contains a review of the risk to Glenalla private water sources, the catchment areas the supply that has the potential to be affected by the development. Part 1c) seeks a requirement for all PWS user properties and their source uptakes and catchment areas to be marked on a scaled maps to assess risk to catchment areas of the sources drawn from. This part of the condition also includes a requirement for a bespoke hydrogeological report to be produced in relation forestry removal, harvesting, compensatory planting or any other associated works in relation to forestry in relation to the development. Lastly, Part 1d) stipulates the requirement for an Emergency Action Plan to be submitted which clearly states who would be responsible, when they would be required to take action and where this would be implemented and what action and mitigation would need to be implemented for any emergencies arising (this will include emergency contact details to be provided to PWS users and South Ayrshire Council). Given the above, subject to additional mitigation being adopted, there are not considered to be any significant effects on PWS.

Ground Water Dependent Terrestrial Ecosystems (GWDTE)

- 9.9.35 Chapter 9 of the EIA Report includes an assessment of GWDTEs and assesses habitats indicative of GWDTE which were identified during National Vegetation Classification (NVC) work undertaken for the site and access track options. As part of these works, several potential moderately highly and highly GWDTEs were identified. The assessment, in accordance with SEPA's LUPS GU31 guidance (2017) on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems, sets out considerations of these habitats' hydrogeological regime to determine if these potential GWDTEs are truly groundwater dependent or not.
- 9.9.36 The findings as set out are that the majority of the potential GWDTEs identified onsite by the NVC survey were not considered to be groundwater dependent due to a variety of hydrogeological reasons with all of these detailed in the EIA Report. In turn, for the majority of the potential GWDTEs identified by the NVC survey, the assessment considers that these can be ruled out as being truly groundwater dependant due to the hydrogeological regime indicating that they are peatland, perched wetlands, or perched flushes on the upland areas of the development area dominated by precipitation and /or surface water rather than groundwater. In addition to this, the area is knolly with plateaus, hollows, and valleys which when underlain by relatively impermeable strata can become waterlogged. The assessment goes on to clarify that the areas that may have some groundwater influences are the discharge zones at lower altitudes and where glacial till is not present. These are mostly only located in areas associated with watercourses where alluvium is present, such as the Balbeg Burn, Palmullan Burn or the unnamed tributary to the Cawin Burn and will have a significant amount of surface water dependency also.
- 9.9.37 The only exception to this is one area around the existing forestry track to the north of Glenalla Farm which has the potential to have some groundwater and surface water influence based on the hydrogeological regime. The assessment confirms that no infrastructure other than access track and watercourse crossings are located within these areas that have been identified as having some likely groundwater influence and all track in these areas will be designed to allow the continuation of shallow groundwater and surface water flow so there will be no significant impact to any potential GWDTEs or wetlands.
- 9.9.38 SEPA have considered the GWDTE assessment and as part of their consultation response they advise that they have no concerns with the findings. As part of this however, and as per Section 9.7.94 of Chapter 9 of the EIA Report, they advise that where tracks cross this habitat (even if it's not classed as groundwater fed) that sub surface drains are implemented to maintain the hydrological connectivity to protect the wetland habitats. This could be addressed as a condition by the ECU. NatureScot have also not raised any objections to GWDTE in their consultation to the ECU.

Flood Risk

- 9.9.39 Flooding is considered as a specific topic area as part of Chapter 9 of the EIA Report. The assessment takes an informed position following a comprehensive review of all available SEPA flood maps and material and in the first instance it confirms that the proposed development infrastructure is not located within or in close proximity to a SEPA flood risk area. More specifically however, a review of the SEPA Flood Risk Management Mapping indicates that the Cawin Burn, Balbeg Burn and Palmullan Burn have associated areas of medium to high-risk fluvial flood zones along the alignment of the watercourses within the valley bottoms. In addition to this, the Water of Girvan to the east of the site and downstream of the site has a significantly wide medium to high-risk fluvial flood plain which is wider than 3m in places. The SEPA Flood Maps also indicate that there are small areas of potential surface water flooding within the site, mostly adjacent to watercourses, their headwaters, or depressions on the higher altitude sections of the site where water can accumulate.
- 9.9.40 Taking cognisance of these identified watercourses, the assessment goes on to consider the impacts of the proposed development in terms of land take in relation to these features. The assessment first states that the total footprint area of the proposed development (all infrastructure, both access track options and up to 2m of widening along each existing access track option) is 20.47ha and is unlikely to materially increase the probability of flooding elsewhere or significantly increase surface run-off rates providing appropriate drainage is installed. The assessment goes on to confirm that the proportion of total land take for each main catchment is less than 1.5 percent of each catchment area (Cawin Burn 0.41%, Balbeg Burn 0.46%, Palmullan Burn 1.21%, Genoch Burn 0.008%, Tairlaw Burn 0.004%, and Lady Burn 0.061%) and that the majority of the land take will be semi permeable hard standing for access tracks, crane pads, construction areas and remain as peat for the temporary laydown areas and reinstated borrow pits. The only permanent impermeable surfaces within each main catchment will be the turbine bases, the substation and energy storage facility, and the permanent meteorological mast and therefore the total proportion of impermeable land take for each catchment is negligible for all catchments, with the exception of the Palmullan Burn as the impermeable land take is calculated to be less than 0.5%.
- 9.9.41 The assessment concludes that flood risk sensitivity is considered low as the proposed development infrastructure will not be positioned within or near a flood plain, with the exception of access track crossings of main watercourses, and the proposed development design has minimised the amount of land take, hard surfacing, and watercourse crossings as far as reasonably practicable. As a result, the assessment concludes that it is unlikely that the proposed development would have an adverse impact on local fluvial flood risk given that the development area is located on hill slopes at the top of the catchment and on the basis that there are no known sensitive receptors in close vicinity to the development area. In any case, the assessment confirms that mitigation will be put in place to control and attenuate run-off during all phases of the proposed development.
- 9.9.42 SEPA have not raised in specific issues in their consultation response to the ECU with this particular element of the overall assessment. ARA, the Council's Roads Authority, also do not object to the application on flood risk grounds.

Water Environment and Quality

- 9.9.43 Under the Water Framework Directive (WFD), planning authorities have a duty to safeguard and seek improvements to the water environment. As a consequence, the potential impact of a wind farm construction on local hydrology requires to be assessed and protective and preventative strategies put in place to reduce potential impact. In this instance and as set out at various points in this report, there are a number of river catchments both within the site and in close proximity to it. The entire development area is within the Water of Girvan Catchment, mainly via the Palmullan Burn which runs through the development area and by other tributaries: the Genoch Burn in the east, the Pulreoch to the Tairlaw Burn in the extreme southeast, Balbeg Burn in the north, the Cawin burn in the extreme north and the Shiel Burn to the Lady Burn in the extreme west. The water quality in the surface watercourses on site is classified as, or generally considered to be, either good or high and many of the larger watercourses have the potential to support migratory fish. The Tairlaw Burn catchment is a surface water drinking water protection area (DWPA). Tairlaw Burn and its catchment are therefore highly sensitive and associated Scottish Water infrastructure is also present within the western section of the development area along the Water of Girvan flood plain.
- 9.9.44 The proposed development has the potential to impact on the water environment (including having effects on groundwater and surface water) at construction, operational and decommissioning stage. The potential effects are defined in the assessment section of this chapter, and this includes the excavations required to form the site infrastructure, erosion, and movement of sediment from transport activity, quarrying with the borrow pits, the related forestry felling and replanting, accidental spillages of pollutants and through the requirement to deliver and install water crossings. In response to this, a series of mitigation is proposed within the assessment including a drainage management plan, a water quality management plan, and the appointment of an ECoW. The assessment considers that through the good practice mitigation including water quality monitoring, an emergency response plan and a methods statement for additional runoff and sediment management for the PWS and Balbeg Burn track sections, no significant adverse direct and/or indirect effects on soil or water features from the proposed development are anticipated. In addition to these future preventative measures, it is relevant to note that the proposed development has sought to comply to a buffer zone from watercourses as part of the layout presented. More specifically, the assessment sets out that the layout of the development and the design of the infrastructure within the site has been located, in so far as possible, over 50m from main watercourses, with the exception of where tracks approach watercourse crossings, minor sections of Turbines 1 and 9, and some sections of track on the northern route.

- 9.9.45 Ayrshire Rivers Trust (ART) in their consultation response to the ECU have advised that they have reviewed the proposed recommendations set out in Appendix 9.5 'Watercourse Crossing' and that appropriate crossing types have been proposed for each watercourse albeit that they would recommend upgrading existing plastic pipe culverts where possible. ART request that if consent is obtained for the proposed developments, final plans and drawings for water crossings are submitted to them and that for all water crossings, continuous fish passage and continuous flow is provided at each water crossing ensuring no hanging culverts and that resident fish are removed from the site prior to any instream works being undertaken. In addition to this, ART advise that the monitoring programme to assess the impacts of construction works under the Construction Environmental Management Plan (CEMP) should include provision to monitor these water crossings as previous experience at similar developments have shown that this type of work can release substantial quantities of silt into the water environment. As noted in Chapter 18 Schedule of Environmental Commitments, ART welcome the continued monitoring of the fish populations during and after construction and that preconstruction surveys will also be undertaken to form a baseline on the current species and abundance. They also recommend that macroinvertebrate surveys are completed to compliment the water quality monitoring and electrofishing surveys and offer support in developing these alongside citing relevant Scottish Government and Marine Scotland Guidance which these surveys should follow.
- 9.9.46 ART note that Freshwater pearl mussel (FWPM) 'habitat surveys' were undertaken to inform the EIA however they highlight concerns that these species have been scoped out with minimal assessment and note there is no provision for FWPM pre-construction surveys in the Schedule of Environmental Commitments. They highlight that this is concerning given Appendix 8.3 Fisheries summarises 'there are records of FWPM in the upper reaches of the Water of Girvan' and the hydrological connectivity of the Water of Girvan to the watercourses that drain the site. ART wish to provide comments and assist with the proposed baseline survey methodology and survey site locations for fish and freshwater pearl mussels and highlight the need for robust protection of watercourses during forest felling activities and strict 'adherence to SF Guidelines e.g., to ensure protection and enhancement of the water environment during felling and construction'. This would be a matter for the ECU to consider.
- 9.9.47 As previously set out and summarised in the consultation sub-section of this Panel Report, SEPA initially issued a holding objection due to concerns and issues regarding the potential impacts on the water environment. At the time, whilst they advised that they did support the adoption of a 50m buffer between proposed infrastructure and watercourses shown, they raised concerns with the proposal to culvert minor drains in the vicinity of wind turbines 1, 2, 6 and 7 as described in Chapter 9 of the EIA Response which they assume was also the plan for the drain through the energy storage facility. They set out that it was unclear from the information provided whether these drains are holding water or whether they remain dry most of the year and as a result of this, they requested further information from the applicant to fully describe the nature of the proposed works in these locations and justify the intended approach of culverting the drains for land gain.

9.9.48 In an addendum response issued to the ECU in March 2022, SEPA confirmed the withdrawal of the initial holding objection. In this response they acknowledged the further information provided regarding the minor drains in the vicinity of wind turbines 1, 2, 6 and 7 as described in the EIA Report, and at the energy storage facility. Based on the information provided, SEPA confirm that they accept that all of the drains are man-made features of no or little ecological value and are therefore content with the proposal to either block or reroute the channels. To ensure that this occurs rather than culverting, they have asked that a condition is applied, if consent is granted, that requires the ditches in the vicinity of wind turbines 1, 2, 6 and 7 and at the energy storage facility be sensitively rerouted or blocked prior to work commencing on the related infrastructure. This condition would require to be attached alongside the other safeguarding conditions set out by SEPA in their earlier response which include the submission of a Peat Management Plan (PMP) and specific restrictions/limitations with regards to micro siting on site.

Borrow Pits

9.9.49 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.

9.9.50 Appendix 3.2 of the EIA Report comprises of the Borrow Pit Assessment. It firstly sets out that the proposed development will have a requirement for approximately 82,435 m³ of construction stone material mainly for the construction of access roads, crane hardstandings and construction compounds. A desktop study and site walkover were carried out to identify potential sources of construction stone and suitable areas for stone extraction within the site to provide enough rock material for the project. Taking into consideration the existing environment, the geology of the area and the layout of the proposed development, five borrow pits were identified as being required. Of the five borrow pit search areas that have been identified, three of these are to be within the main development area and one each on the northern and western access route options. Depending on which access route option is selected, only one of the latter two borrow pit areas would be used. Key considerations in the selection process were rock quality and quantity, topography, haul distance, and potential environmental impacts. As part of the environmental considerations, areas of peat, potential habitat, cultural heritage, and watercourses were sought to be avoided with remaining available sites chosen based on the options with steeply sloping ground (to reduce the need for open excavation and unnecessary visual prominence) which also showed promise for the best quality of rock (assessed based on exposed rock at the surface). For the sites selected, the assessment confirms that intrusive investigation is required on all identified borrow pits to determine extent of rock, rock type and suitability for use as rock fill for the construction of access road, crane platforms and aggregate for use in concrete and the construction process for is detailed within the assessment. The assessment concludes that based on initial calculations it is expected that there will be sufficient material acquired on site to match the construction requirements.

- 9.9.51 The consideration and demonstration of the economic and environmental benefits for opting to use on-site borrow pits as required by SPP is considered to be limited within this assessment and information provided. This includes both in terms of the EIA Report but also the Planning Statement which does not make specific reference to the criteria of SPP in the relevant sub-sections of the document. The only specific reference to tangible benefits in the relevant appendix with this in relation to the haul distances sub-section. Benefits cited as part of this include the fact that on-site borrow pits would reduce the volume of site traffic/number of haul vehicles, air pollution and Health and Safety risk alongside the fact that the tracking of vehicles in periods of wet weather when plant movements would be kept to a minimum. Beyond this relatively brief summary, the assessment at Appendix 3.4 does not present any specific case in relation to demonstrating the significant environmental and economic benefits of opting for on-site borrow pits nor does it validate or demonstrate the extent of these benefits comparing the alternatives of obtaining stone material from local quarriers and other external and off-site resources.
- 9.9.52 Following discussions, the applicant has provided the Planning Authority with a supplementary statement (dated 9th May 2022) which seeks to respond to the absent information referenced above. Following review, it is considered that this is sufficient in providing a direct response to SPP. From understanding the level of stone material required in relation to the construction of the development (82, 435m³) it was accepted that from obtaining this on site, this will inevitably result in a significant reduction in HGV traffic using the small local roads in the vicinity of the site (which would be the case for either the 'Western Access' or the 'Northern Access'). The supplementary written submission builds on this and confirms that the nearest local active quarry is Barbae Quarry situated approximately 15km southwest to the application site and that this would involve increased traffic volumes on B and C class and unclassified roads specifically the B734 and B7035. Given alternative modes of transport such as rail or water transport are not possible for this development site the submission demonstrates that on-site borrow pits will have direct benefits for road user and pedestrian safety, air pollution, carbon emissions and general residential amenity and these are all noted.
- 9.9.53 Weight is also given to the Council's Environmental Health Service consultation response who have offered no objections to this aspect of the development proposal in their feedback to the Planning Authority. This is also the case for SEPA who have not raised any objections to the borrow pit locations either in their response to the ECU. In addition to both of these, it is also noted that ARA in their consultation response to the Planning Authority have specifically highlighted their support for the use of borrow pits within the curtilage of the site alongside any other efforts to minimise HGV movements associated with the development itself.
- 9.9.54 On balance, whilst the original assessment of borrow pits is considered to fall short in terms of demonstrating the specific requirements of SPP, the combination of the supplementary statement provided by the applicant, the available factual information within the original EIA Report assessment document combined with position as set out by relevant consultees to the process allows the principle of on-site borrow pits to be considered an acceptable and justified approach in this case.

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

- 9.9.55 In relation to aviation matters, the developer has not demonstrated that their development does not impinge on the current operation of Glasgow Prestwick Airport as an agreed mitigation is not in place and available and maintained for the lifetime of the windfarm. Consequently, it is considered that the proposed development is not in accordance with LDP Policy Wind Energy Criterion (f).
- 9.9.56 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 and Water of Girvan Local Landscape Area. Cumulative adverse visual impact has also been identified on popular walking routes within the High Carrick Hills LLA, from Craigenhower Hill near Straiton 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. Similar 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 Carrick Windfarm would also exacerbate the adverse impact on Residential Visual Amenity at Tairlaw Toll Cottage.

Other Significant Policy Considerations

National Climate Change Policy, Energy Policy and Planning Policy:

- 9.9.57 The Scottish Government policies, commitments and targets for sustainable energy are set out in the 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 updated).

National Planning Policy Framework 3 (June 2014):

- 9.9.58 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 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 place 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 (June 2014):

9.9.59 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:

9.9.60 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 expressed 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 Position Statement issued on the 24th November 2020 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 is considered that the proposed development is therefore not fully in accordance with Scottish Planning Policy.

Control of Woodland Removal Policy 2019 (Scottish Forestry revised 2019):

9.9.61 This sets out Scottish Ministers policy on woodland removal in Scotland. The guiding principles behind the policy include a strong presumption in favour of protecting Scotland's woodland resources and only allowing woodland removal where it can achieve significant and clearly defined additional public benefits. In appropriate cases a proposal for compensatory planting may form part of this balance.

9.9.62 In this instance, the EIA Report proposes compensatory planting as mitigation to offset felling requirements to facilitate the site access to the development. Scottish Forestry in their consultation response set out that they have no objections to the proposed development subject to conditions. They note the relatively modest scale of the felling requirements which are concentrated closer to the access route options that form part of the overall development proposal. Whilst no specific details have been submitted for compensatory planting as part of the assessment undertaken, the commitment to undertaking this has been set out and this matter could be dealt with by way of a planning condition, should consent be granted, requiring details of compensatory planting to be agreed in conjunction with Scottish Forestry.

Benefits of the Proposed Scheme

9.9.63 The EIA Report (Chapter 13) and the Planning Statement (Section 5) set out that the proposed development would deliver and contribute towards the following key benefits:

- The proposed development would contribute to the attainment of the UK and Government policies of encouraging renewable energy developments; and in turn contribute to the achievement of UK and Scottish Government targets for renewable electricity generation. The proposed development, with an installed capacity of approximately 59.4 MW, would make a valuable contribution to meeting such targets.
- The proposed development would help advance the Governments policy objective in terms of its long-term commitment to the decarbonisation of electricity generation. More specifically, the proposed development is expected to save approximately 33,000 tons of carbon dioxide per year, resulting in a total saving of 1.0 million tonnes over the 30-year lifetime, through displacing carbon-emitting generation.
- The proposed development would have a total capacity of 59.4 MW, generated by nine 6.6 MW turbines which together would produce around 138 GWh/year of clean power which would generate enough electricity to supply approximately 40,500 average Scottish households.
- The proposed development will increase indigenous production of renewable energy in Scotland while contributing towards reducing the country's reliance on foreign fossil fuels, generating wealth from natural resources, and improving the country's energy security.
- The proposed development comes a time when the country requires to meet the demand for the transition to heat homes and the demand for electricity to increase with the move to electric vehicles. The proposed development will contribute towards providing additional generation capacity to meet the demands from new renewable sources.
- The proposed development will deliver approximately £297,000 per annum in Community Benefit Funding, equating to £8.9m in total over its 30-year operating life.
- The Applicant is committed to exploring the potential for community investment with the proposed development, creating the opportunity for local community groups to explore shared ownership of the wind farm.
- Total development and construction expenditure of the proposed development over its 30-year lifetime is estimated at approximately £70.9 million, and each year operations and maintenance expenditure could amount up to £1.5 million. The Applicant is committed to a local supplier approach and confirm that they will endeavour to source supplier contracts locally where possible, sustaining local businesses and providing employment opportunities for local people.
- It is anticipated that the proposed development during its construction and development could generate up to £4.4 million Gross Value Added (GVA) and support 62 years of employment in South Ayrshire and £16.4 million GVA and 225 years of employment across Scotland.

- It is anticipated that the proposed development during its operation could generate £0.4 million GVA and support five jobs in South Ayrshire each year and £0.6 million GVA and eight jobs across Scotland.
- The proposed development would contribute an estimated £0.4 million per annum to public finances by way of non-domestic rates.
- The proposed development site sits within a landscape of operational, consented and in planning wind farm developments, which benefit from a strong wind resource, strong access to the A77 trunk road and a proximity to electricity network. It is therefore considered to represent a suitable site for wind energy development which utilises some existing site infrastructure and recognises the accepted principle of wind energy generation within the local landscape.
- The proposed development will be capable of meeting targets set by the Scottish Government for the onshore wind industry in Scotland to start building wind farms without public subsidy.

10. Conclusions

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

11. Recommendation

- 11.1 It is recommended that South Ayrshire Council submit an objection to the Scottish Government for the reasons a), b), c), d) and e) listed below. It is also recommended that comment f) below is submitted to the Scottish Government.
- 11.2 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 to Paragraph 2, Schedule 8 of the Electricity Act 1989).

Reasons For Objection:

a) Landscape and Visual

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.

b) Landscape and Visual – Aviation Lighting

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 associated with the turbines would not introduce intrusive and prominent lights both on their own and in combination with other proposed/application stage wind farms into an area important for dark skies, thus adversely impacting upon views from the Merrick Wild Land Area and the Galloway Dark Sky Park. The required aviation lighting will extend the adverse landscape and visual effects into the darker hours and 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. There is no reason to depart from South Ayrshire Local Development Plan policy or Supplementary Guidance on Wind Energy.

c) Landscape and Visual – Tourism and Recreation Resources

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, High Carrick Hills Local Landscape Area, the Water of Girvan Valley Local Landscape Area and important viewpoints including views from roads and footpaths within the upper Girvan valley between Straiton and Tairlaw (where this proposal would form a dominant and highly feature) and views from the popular ridges and summits of the high Carrick Hills, including from the Corbett of Shalloch on Minnoch and Cornish Hill and also from Craigenhower Hill (Colonel Hunter Blair monument) near Straiton. This proposal would also be seen together with the operational Dersalloch Windfarm in views from settlement and from Core Path SA47 Bennan Walk which is aligned in this valley as well as views from more informal unpromoted but popular walking routes around Rowantree and Pinbreck Hills which lie on the southern edge of the Stinchar valley which would also be significantly affected. There is no reason to depart from South Ayrshire Local Development Plan policy or Supplementary Guidance on Wind Energy.

d) Landscape and Visual – Residential Visual Amenity Impact

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. There is no overriding reason to depart from South Ayrshire Local Development Plan policy or Supplementary Guidance on Wind Energy.

e) **Glasgow Prestwick Airport**

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.

Comment to Scottish Government

Conditions

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 in the following paragraph:

In relation to core paths and rights of way, conditions which include specific measures to ensure that the ones which pass directly through the site are not obstructed for the duration of construction period of the development would require to be included. In addition to this, the Council would also seek to ensure that signage improvements on these recreational routes are secured in line with the requests and recommendations of the Council's Outdoor Access Officer. With regards to PWS, the Council's Environmental Health Service advise that conditions will need to be in place to secure additional safeguarding measures to protect the water supply to the property of Glenalla should the 'Western Access' be progressed for the proposed development. The Council's Environmental Health Service have also requested conditions relating to shadow flicker and dust mitigation during the construction stage and these would also need to be attached. On the subject of noise impacts; there will be a need for conditions which cover the relevant mitigation set out by ACCON UK Limited which seeks to govern controls on construction and operational noise limits, the control of amplitude modulation and also vibration and air over-pressure from blasting. West of Scotland Archaeological Service (WoSAS) have requested a condition relating to providing a programme of archaeological works and a written scheme of investigation to be agreed with them. The Council's Biodiversity and Ranger Services have requested specific conditions in the interests of curlews and ground nesting upland waders including a requirement for mitigation where the development affects their territory/habitat. Finally, the Council's Road Authority, Ayrshire Roads Alliance have requested a suite of conditions relating to access construction, limitations on abnormal load and construction traffic movements, inter-visible passing places (U27 and U31 respectively), visibility splays, discharge of water, positioning of turbines from the public road, Construction Traffic Management Plan, swept path analysis, structural assessments, and inspections to be attached.

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)

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