

Stirling Council

Agenda Item No. 5

Planning & Regulation Panel

Date of Meeting: 7 December 2021

Not Exempt

Construction And Operation Of Shelloch Wind Farm Including Five Wind Turbines With Associated Access And Infrastructure Including Tracks, Hard Standing, Control Building, Borrow Pit And Anemometer Mast At Land 2KM North West Of Wester Cringate And South Of Ling Hill, Fintry - Force 9 Energy LLP And EDFR - 20/00840/FUL – HEARING

Purpose & Summary

Detailed planning permission is sought by Force 9 Energy LLP and EDF Renewables to construction and operate a windfarm with associated access and infrastructure. The windfarm is to comprise five turbines, two of which will have a maximum tip height of 180m and three of which will have a maximum tip height of 149.5m.

This application is a major planning application under the terms of the Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009. The application for planning permission is accompanied by an Environmental Impact Assessment in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended).

A Hearing request has been made by the applicant within timescales according to procedure in order to have the opportunity to address the Panel.

This report forms the Report of Handling for the planning application in compliance with the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013.

Recommendations

Planning & Regulation Panel is asked:

1. to approve the application subject to conditions set out in Appendix 1.

Resource Implications

Not applicable.

Legal & Risk Implications

Not applicable

1. Background

- 1.1. Planning permission is sought to construct and operate a windfarm for a 30 year period on a site within the Fintry and Gargunnoch/Touch Hills area where planning permission had previously been granted on appeal for a windfarm and planning permission granted for an access track. This proposal seeks to utilise the same track and windfarm site but with 5 turbines, instead of 7, with an increased turbine height (149.5m and 180m instead of 125m).

2. Considerations

The Site

- 2.1 The site is open moorland and rough grazing. It lies approximately 4.5km north-east of Fintry and approximately 6km south of Kippen. The site includes the north-east facing slopes of the Backside Burn valley, on the flank of the ridge that runs down from Stronend. The site is drained by the Shelloch Burn and tributaries of the Backside Burn. The closest residential properties are positioned along the proposed access track and include Gribloch Farm, Easter Glinns, Mains of Glinns and Knowehead. The settlements of Fintry, Kippen, Gargunnoch and Carron Bridge are within 10km of the site. There are no settlements within 2km of the proposed development. The site lies within the Gargunnoch/Touch Hills area which currently accommodates the existing wind farm developments of:

- Earlsburn - 15 turbines of 110m (37.5 Mw), operational 2007
- Kingsburn - 9 turbines of 115m (22.5Mw), operational 2016
- Craigengelt - 8 turbines of 125m (20Mw), operational 2010
- There is also a single 102m turbine 0.6 km north of the summit of Craigannet Hill.

The Proposal

- 2.2 The application seeks planning permission for up to 30 years for the erection of five turbines: two of which are to have a maximum turbine blade tip height of 180 metres and three are to have a maximum height of 149.5 metres. Red aviation lights are proposed on the two taller turbines. The overall generating capacity of the windfarm is anticipated to be up to 24 megawatt (MW). As well as the turbines, there are a number of other structures and works proposed including an anemometer mast (of up to 110 metres in height), a control building, approximately 6km of new access track in addition to 4km of upgraded track, crane hardstandings at each turbine location. The proposal also includes a 50 metre micro-siting allowance on all infrastructure.
- 2.3 A number of temporary works are also proposed, including borrow pits, a construction compound as well as a site security compound off the B822.
- 2.4 Access to the site is proposed to be taken from the north via the A811, C36 (Firs Road) for approximately 3.3km, the B822 at Kippen Muir east for approximately 1.3km and a series of upgraded and new tracks (including parts of the Glinns Road) passing Gribloch Farm, Easter Glinns and up through the Spout of Ballochleam. Public road widening and/or re-alignment works on the C36 (Firs Road) and the B822 to accommodate abnormal loads are also included within the proposed works.

- 2.5 The turbines are to be installed on stone and concrete foundations. Crane hardstandings (approximately 60m by 30m) are proposed next to each turbine and a couple of additional areas of hardstanding called 'finger blades' (measuring 24.5m by 4.5m) will also be in situ to be used as laydown areas for the turbine blades prior to them being lifted into place. The crane hardstandings are to remain in place during the operation of the windfarm to provide an access for maintenance and repairs. Transformers will be located on the crane hardstanding next to each turbine and will increase the electrical voltage to 33 kilovolts (kv).
- 2.6 Night-time aviation lights are to be installed on the two 180m turbines in accordance with legislation. Two fixed red 2000 candela lights are to be located on the turbine hub (one operating and one for backup) and three fixed red 32 candela lights on the tower at half hub height to provide 360-degree coverage. Infrared lighting, which is not visible to the naked eye, will be fitted to all five wind turbines.

Previous History

- 2.7 *13/00728/FUL – 2 Kilometres North West Of Wester Cringate, Polmaise Road To Carron Reservoir, Stirling - Erection of seven wind turbines of up to 125m in height (to blade tip), each with an external transformer and associated hardstandings; a meteorological mast; a control building; a temporary construction compound; formation of new access tracks and two borrow pits for the winning and working of aggregates; and other ancillary development.*
- 2.8 The previous planning application (13/00728/FUL) was refused by Stirling Council in March 2015. The application was refused on the grounds of limited landscape capacity for additional wind turbines which resulted in significant landscape and visual effects (including cumulatively). The proposal was therefore deemed contrary to Stirling Local Development Plan (Adopted 2014) Policies 12 (Renewable Energy), 12.1 (Wind Turbines) and 9.1 (Local Landscape Areas). An appeal (PPA-390-2039) was upheld in November 2015 granting planning permission. Normally, if the development was not implemented within the requisite time period (3 years) then the permission would have expired. However, in this case the Reporter made an error in his reliance on the legislation to set the duration of the permission. Normally, there is not a requirement to set out the period within which a permission needs to be implemented since this is set out at S58(1) of the Town and Country Act 1997 (as amended). However, there are exceptions to this and these are set out at S58(4) of the same Act. One of the exceptions is "any planning permission granted for a limited period" (s58(4)(c)). Such permissions are defined in S41(3) of the Act and, because the original consent was subject to a condition limiting the period of operation, it falls within the definition given in S41(3).
- 2.9 In summary, the Reporter should have included a condition setting out the duration of consent. In failing to do so, there is no limitation to when 13/00728/FUL can be implemented. This means that there is extant planning permission on this site for a windfarm comprising seven wind turbines which could be implemented at any point in the future.

- 2.10 *17/00838/FUL – Land 2 Kilometres North West Of Wester Cringate, Polmaise Road To Carron Reservoir, Stirling – Formation of improved access from the B822 and construction of an access road using upgraded sections of existing tracks and new tracks to allow construction and operation of the consented Craigton and Spittalhill Wind Farm (planning permission reference 13/00728/FUL).*
- 2.11 The applicant was seeking to utilise longer blades for the approved turbines (56 metres instead of 52 metres) however, upon investigation of the road network, it was found that the access route envisaged to implement 13/00728/FUL (PPA-390-2039) had too many insurmountable constraints. A revised route to the north, via the A811 and B822 to a new site access point at the existing access to Gribloch Farm, was therefore sought. This also utilised existing access tracks at Gribloch farm as well as comprising some sections of new track. The application was approved in March 2018.

Consultations

Arnprior Community Council:

- 2.12 Initial comments raised (27 Feb 2021):
- 2.12.1 Comments regarding omission of Arnprior Community Council from the PAC consultation process due to an error in communication.
- 2.12.2 Concern regarding the use of C36 (Fair Loan, referred to by Stirling Council Roads as Firs Road) as principal access route for the works – comments regarding the general limited road width with high verges, ditches, trees and constrained access from C36 onto the A811. Current low vehicle usage of C36 compared to a significant increase in usage as a result of the construction of the windfarm.
- 2.12.3 Any acceptance of the C36 as an access route for the development should be conditional on improvements being completed before construction commences. If improvements are not achieved then Arnprior Community Council will object to the proposal.
- 2.12.4 Outlines that C36 is an important route for walkers and cyclists. Protection needs to be given to these groups if they are to be able to continue using the route safely. Consideration to a pedestrian route off the carriageway otherwise Arnprior Community Council will object to the proposal.
- 2.12.5 Any permission should include a condition requiring measures to allow continuing safe use of the C36 by businesses without disruption by site traffic, appropriate drainage to address surface water on the C36 and protection or re-routing of utilities.
- 2.12.6 Further details of road works are required to ensure that there is no adverse impact on trees.
- 2.12.7 The temporary junction and works to accommodate abnormal loads will badly distort the appearance of the village whilst it remains in place. It is therefore important that it is ensured that the junction and works are temporary with appropriate restoration.
- 2.12.8 Note that Supplementary Guidance 'Wind Energy Developments' states there is no capacity in the area for developments with turbines over 110m in height.

- 2.12.9 Visual Impact: The proposed turbines will significantly change and break the appearance of the existing hill edge. Aviation warning lights will increase the visual prominence of the turbines.
 - 2.12.10 Arnprior Community Council had an online consultation with the developer on 11 March 2021. Comments were revised on 19 April 2021 to include a number of additional issues, noting that the previous comments still remained:
 - 2.12.11 Developer should consider providing an off-carriageway pedestrian route along the C36.
 - 2.12.12 Developer should provide signposted passing places along the C36 and the A811/C36 road junction brought up to current road standards in terms of width and visibility splays. These matters should be ensured through a planning condition.
 - 2.12.13 A Tree Survey should be undertaken to inform the design of road widening and passing places.
 - 2.12.14 Request that the foundation layer of the abnormal load diversion route road is removed, alongside the upper layer, and reinstated once the construction of the windfarm is completed to ensure that the area would not affect productive agriculture. Request a condition to address this matter.
 - 2.12.15 Passing places proposed on the C36 - consider that the location marked as "Passing Opportunity #2" at the Jennywoodston road junction should be removed from the drawings. This is a public road junction, not a drive end, and it is not appropriate to propose that traffic should swerve into this side road bellmouth.
 - 2.12.16 The Applicant currently proposes that all passing places should be temporary, and be removed at the end of the construction period. Arnprior CC would propose instead that all passing places and associated roadside drainage works should be constructed to a specification to the satisfaction of Stirling Council Roads for permanent works, and that there should be consultation before their removal with the Community Council and the Roads Department to determine which, if any, of the passing places the local community consider would be appropriate to leave in place.
- 2.13 Proposed details for the junction between the C36 and the A811:
- 2.13.1 Stirling Council Roads Department should advise on what visibility splay is actually required.
 - 2.13.2 It is not clear from the drawings which trees, ground or features along the edge of the A811 require to be removed to create the visibility required at the junction to meet current standards.
- 2.14 Concerns raised re impact on C36 - improvements required; maintaining pedestrian safety on C36; drainage on C36 to be maintained/improved; water mains on C36 not to be damaged; protect mature trees on C36 route or consider objection regarding environmental impact; junction alterations to be temporary only; concern regarding location and height of turbines. Comments given regarding lack of pre-application consultation.

Cambusbarron Community Council:

- 2.15 Consulted on the planning application and Environmental Impact Assessment on 14 January 2021. Consulted on the Supplementary Information on 11 August 2021. No response received to either consultation.

Carron Valley & District Community Council

- 2.16 Objects: Height of the two largest turbines, their illumination, and subsequent impact on the landscape and Dark Sky initiative. The height of the turbines means that they will be more visible from a number of viewpoints thereby dominating the skyline. Taller turbines necessitates the requirement for aviation lighting - turbines should be limited to 150m. Outlines that part of the route is a Core Path and Right of Way therefore access should be maintained.

Gargunnoch Community Council:

- 2.17 Support: 1) Reduction in carbon footprint of electricity generation; 2) preference for turbines located near existing turbines and precedent established by extant permission for a windfarm; 3) Landscape and Visual Impact mitigated by design; 4) Increase in height not seen from Gargunnoch village; 5) site is not productive agricultural land; 6) Road disruption temporary and, if properly managed, should not be problematic to Gargunnoch residents; 7) No additional impact beyond existing turbines envisaged; 8) Gargunnoch Community Trust supports the proposal; 9) the existing Core Path should be maintained and, if possible, improved; 10) Enhanced recreation opportunities through use of upgraded tracks; 11) De-commissioning & restoration required at the end of the 30-year projected life of the windfarm.

Kippen Community Council:

- 2.18 Consulted on the planning application and Environmental Impact Assessment on 14 January 2021. Consulted on the Supplementary Information on 11 August 2021. No response received to either consultation.

Fintry Community Council:

- 2.19 Consulted on the planning application and Environmental Impact Assessment on 14 January 2021. Consulted on the Supplementary Information on 11 August 2021. No response received to either consultation.

Strathblane Community Council:

- 2.20 Objects. Reasons for objection:
- carbon calculations are optimistic;
 - landscape impacts; and
 - cumulative impact.

Thornhill & Blairdrummond Community Council:

- 2.21 Objects. Reasons for objection:
- 2.21.1 Size and scale – The Supplementary Guidance ‘Wind Energy Developments’ states that there is no capacity for very large turbines (110m+) in the proposed area. This proposal is contrary to that Supplementary Guidance (para 5.13).

- 2.21.2 Landscape and visual impacts (including lighting) – the proposed development would significantly disrupt the horizon and hill edges as seen from the north. This will be exacerbated by the movement of the turbines. Being sited on high ground, the turbines will be visible over a wide area. The requirement for lighting will add to the negative impact on the night sky, adding to light pollution. The proposal is contrary to Local Development Plan Policy 9.1 (Protecting Special Landscapes) as well as Supplementary Guidance ‘Wind Energy Developments’ (para 5.15);
- 2.21.3 Cumulative impact – co-location of proposed development with existing windfarms will give rise to a clustering effect and further dominate the view south from the Forth Valley and from significant distances further afield. Proposed development is contrary to Supplementary Guidance ‘Wind Energy Developments’ (para 5.16);
- 2.21.4 Roads - upgrade to roads will result in scarring to landscape and development will increase HGV trips on local road network exacerbating problems of poor state of repair as well as disruption;
- 2.21.5 Economic impact - economic benefit of development to local economy is minimal and adverse impact on tourism if landscape adversely affected. The community incentive proposed by the developer is neither sufficient to offset the negative economic impact nor correctly targeted as it does not address the wider communities located further from the turbines;
- 2.21.6 Natural environment and wildlife - impact on bats and birds such as hen harriers, red kites, curlew and pink footed geese. Inadequate attention given to the effect on the natural environment. Contrary to Supplementary Guidance ‘Wind Energy Developments’ (para 5.26).
- 2.22 Additional comments - lack of consultation with Thornhill & Blair Drummond Community Council and misleading information (reliance on previous consented windfarm).

Bridge & Flood Maintenance:

- 2.23 No objection to the application on flood risk grounds. No conditions requested.

Cumbernauld Airport:

- 2.24 Object: Cumbernauld Airport relies on light aircraft making up a sizeable proportion of traffic. These aircraft regularly route via the Carron Valley Reservoir. It is not possible for these aircraft to route south of the B818 due to airspace constraints - the airspace controlled by Glasgow extends from the surface to 6000ft, it is generally not possible to gain clearance through this airspace from the controlling authority. Further, the controlled airspace north of the B818 extends from the surface to 3000ft. This will affect the en-route navigation of light aircraft who will be funnelled into a narrow channel between areas of wind turbines. Turbines will also affect traffic which will be subject to unknown turbulence from the blades.
- 2.25 Cumbernauld Airport also raise issue that the proposed anemometer mast must be well lit as it is very difficult to pick these out whilst flying.
- 2.26 Cumbernauld Airport provided CAA document: ‘Avoiding Airspace Infringements’ and requested that this was to be included in their objection to the proposed wind farm.

- 2.27 Response from Cumbernauld Airport to Technical Note supplied by applicant sent on 23.03.21. Cumbernauld Airport maintains objection – Effect regarding wind and turbulent air (vertical turbulence from proposed turbines and cumulative effect with existing turbines). Due to levels & height of turbine alongside the controlled airspace of Glasgow CTA – leaves only 500ft of ‘free airspace’. This increases workload for controllers and increases risk of infringement by pilots. Turbines reduce the possibilities available for emergency landings. Such complexities may put off pilots and make the airport less viable.

Loch Lomond And Trossachs National Park Authority:

- 2.28 The National Park did not object to the proposal.
- 2.29 Comment: 2 lit turbines will be visible at night from Port of Menteith - significant (moderate) visual effect. Consider turbines will be viewed as extension to existing windfarms on this ridge.

Transport Scotland:

- 2.30 No objection subject to conditions:
- 2.30.1 Abnormal Loads route to be approved by Transport Scotland.
 - 2.30.2 Signage and temp traffic control measures to be approved by Transport Scotland.
 - 2.30.3 Abnormal load delivery trial-run.
 - 2.30.4 Construction Traffic Management Plan (CTMP) prepared by developer and approved by Stirling Council & Transport Scotland.
 - 2.30.5 Vehicles transporting construction material to be sheeted.
 - 2.30.6 Vehicle wheel cleansing facilities to be installed.
 - 2.30.7 Decommissioning Plan to be prepared by developer and approved by Stirling Council & Transport Scotland.

RSPB Scotland:

- 2.31 Consulted on the planning application and Environmental Impact Assessment on 14 January 2021. Consulted on the Supplementary Information on 11 August 2021. No response received to either consultation.

North Lanarkshire Council:

- 2.32 Consulted on the planning application and Environmental Impact Assessment on 14 January 2021. Consulted on the Supplementary Information on 11 August 2021. No response received to either consultation.

East Dunbartonshire Council:

- 2.33 No objection.
- 2.34 East Dunbartonshire Council supports the development of renewable and low-carbon energy technologies, where the location, siting and design has no unacceptable individual or cumulative impact. Subject to being acceptable in terms of location, siting and design, the proposal would appear to support this commitment and aligns with this Council's policy approach.
- 2.35 No impacts on the transport network within East Dunbartonshire are expected and so the council has no objections in relation to access.

- 2.36 East Dunbartonshire Council is satisfied that there will no adverse impact on East Dunbartonshire as a result of the wind farm, as detailed in the Environmental Impact Assessment.
- 2.37 It is noted that the EIA addresses other key matters including geology, peat, hydrology, ecology, cultural heritage, noise, traffic and transport and tourism. Given that the site is located over 3km from the nearest point of the East Dunbartonshire boundary and separated by the Campsie Fells, the Council has no comment on these matters.

Glasgow Airport Limited:

- 2.38 No objection.

Environmental Health:

- 2.39 Applicant requested to demonstrate that noise impact will be comparable to previous consented windfarm. Request condition to address Private Water Supplies, including ensuring appropriate water quality monitoring, plan of action to provide temporary sources etc.

NERL Safeguarding:

- 2.40 NATS Ltd undertook Technical & Operational Assessment (TOPA) which stated, with regard to the predicted impact on Lowther RADAR (all turbines) and Kincardine RADAR (T5 only), “the terrain screening available will not adequately attenuate the signal, and therefore this development is likely to cause false primary plots to be generated. A reduction in the RADAR’s probability of detection, for real aircraft, is also anticipated.” Where an assessment reveals a technical impact on a specific NATS’ RADAR, the users of that RADAR are consulted to ascertain whether the anticipated impact is acceptable to their operations or not. Prestwick Air Traffic Control considered the impact ‘unacceptable’.

Roads Development Control:

- 2.41 No objection subject to conditions
- 2.41.1 Access Management Plan;
 - 2.41.2 Construction Traffic Management Plan;
 - 2.41.3 Detailed Route Assessment Plan;
 - 2.41.4 A811/C36 Road Junction;
 - 2.41.5 Junction Upgrades;
 - 2.41.6 Road Condition Survey;
 - 2.41.7 Inspection Charging.
- 2.42 Further response (24 August 2021) following submission of additional information: With regard to the A811/C36 junction upgrade, it is noted that it is intended to provide a wider radius for vehicles approaching from the east, and an enhanced road width of 7m, which extends for 20m before tapering down to existing width over a 15m distance. A swept path drawing has been provided which evidences that two HGVs can negotiate the junction. Given the fairly substantial upgrade proposed to this junction, the design should be subject to a Road Safety Audit with any recommendations being incorporated into the final design.

- 2.43 A number of drawings have been provided which set out the proposed areas of the C36 that are highlighted for upgrade, primarily through the provision of road widening to provide additional passing opportunities. These upgrades are proposed at fairly consistent centres along the road and should ensure that vehicle conflicts are minimised. The formal detail of these improvements, with regard to construction specification shall be agreed through the formal Roads Permit process that will be required in advance of any roadworks commencing.
- 2.44 With regard to the conditions requested by the Transport Development Team as part of the response dated 3 March 2021, these are still relevant with the requirement for the Road Safety Audit added.

Historic Environment Scotland:

- 2.45 No objection.
- 2.46 No comments to make on the proposal.

Civil Aviation Authority:

- 2.47 Consulted on the planning application and Environmental Impact Assessment on 14 January 2021. Further email sent on 18 May 2021. Consulted on the Supplementary Information on 11 August 2021. No response received to the consultations.

Scottish Environment Protection Agency (East):

- 2.48 Initially submitted a holding objection as required further information: 1) Site Walkover; 2) Updated Peat Management Plan; 3) Revised map regarding engineering activities in or impacting on the water environment, and 4) Revised Surface Water Management Plan.
- 2.49 The applicant submitted further information as Supplementary Information such that SEPA removed previous holding objection. SEPA requested the inclusion of conditions - Section 1 (Disturbance and re-use of excavated peat and other carbon rich soils), 2 (Habitat Management Plan), 3 (Borrow peat), 4 (Water environment, Pollution prevention and construction environmental management).

Sustainable Development Manager:

- 2.50 Consulted on the planning application and Environmental Impact Assessment on 14 January 2021. Consulted on the Supplementary Information on 11 August 2021. No response received to either consultation.

Scottish Water:

- 2.51 No objection. Drinking Water Protected Areas (DWPA) - The activity is a sufficient distance from the intake that it is likely to be low risk.

Thornhill Aerodrome:

- 2.52 Proposal will not have an effect on Thornhill Aerodrome circuit and flying operations.

The Scottish Government:

- 2.53 Noted in the records of the Scottish Government. No comments.

NatureScot:

- 2.54 Potential significant landscape and visual impacts due to the requirement for night time lighting of the 2 taller turbines. While do not consider that this raises issues of national interest, there may be significant adverse effects in the wider countryside. Advice focusses on this: at night the 2 lit turbines would be eye-catching elements in the wider rural context, especially views from the north. Incongruous elements in the night time view.
- 2.55 The applicant provided further information and photomontages in relation to the landscape and visual impact of night time aviation lighting, however NatureScot did not wish to provide further assessment of the new visuals. NatureScot did not consider that this scheme will raise natural heritage issues of national interest, and their advice is therefore limited.
- 2.56 NatureScot stated that the impacts highlighted in their previous response remain, however NatureScot advise that the Council should assess these impacts within the context of their own policies.

Defence Estates (Wind Turbines):

- 2.57 Subject to the conditions, the MOD has no objection to the proposed development.

Representations

- 2.58 35 letters of comment have been received: 32 objections, 1 letter of support and 2 letters of comment which neither objected nor supported the proposal.
- 2.59 The objections and comments raise the following issues:
- 2.59.1 Adverse impact on local economy/tourism with limited economic benefits.
- 2.59.2 Landscape and visual impact.
- 2.59.3 Question the total net carbon effect.
- 2.59.4 Impact on Right of Way and Core Path.
- 2.59.5 Impact on local road network: vehicle speeds, narrow width of existing road between Arnprior - Fintry, journey interruption during construction.
- 2.59.6 'Misleading information' from developer stating that previous permission was extant.
- 2.59.7 Size and scale - The 180m & 149.5m turbines proposed are much larger than any other turbines locally (the tallest nearby being 125m).
- 2.59.8 The heights involved would also mean that the turbines would have aviation warning lights, making their presence even more obtrusive (fixed red lights).
- 2.59.9 A windfarm development on this size would sit above the hill edge, breaking the horizon and interrupting this stunning landscape. It would be an unacceptable landscape change and would be completely out of portion with the rolling hill setting.
- 2.59.10 The number, size and layout proposed would have a massive impact on the skyline, and the access tracks and digging required would cause major landform change.

- 2.59.11 Turbines pose a danger to birds and bats.
 - 2.59.12 Cumulative impact.
 - 2.59.13 Concern regarding decommissioning.
 - 2.59.14 Impact on human rights especially infrasound low frequency sound.
 - 2.59.15 Impact on flight paths for aircraft.
 - 2.59.16 Impact on habitats.
 - 2.59.17 Negatively impact the recreational amenity of the area, completely changing the historic landscape.
 - 2.59.18 Proposal will jeopardise aircraft safety and cause a dangerous situation for all aircraft, and helicopters transiting along the Carron Valley.
- 2.60 The letter of support raise the following issues:
- 2.60.1 Wind farms contribute significantly to reduce the threat of climate change.
 - 2.60.2 The environmental benefits outweigh the environmental impacts.

Local Development Plan

- 2.61 Section 25 of the Town and Country Planning (Scotland) Act 1997 (as amended) indicates that in making any determination under the Planning Acts, regard is to be had to the Development Plan. The determination shall be made in accordance with the Plan unless material considerations indicate otherwise. The following provisions of the Development Plan are considered relevant to the consideration of this application:
- 2.62 Primary Policy 1: Placemaking; Policy 1.1: Site Planning; Policy 1.3: Green Infrastructure and Open Space; Primary Policy 3: Provision of Infrastructure; Policy 3.1: Addressing the Travel Demands of New Development; Policy 3.2: Site Drainage; Policy 3.3: Developer Contributions; Policy 4.2: Protection of Carbon-Rich Soils; Primary Policy 5: Flood Risk Management; Policy 5.1: Reinstatement of Natural Watercourses; Primary Policy 6: Resource Use and Waste Management; Primary Policy 7: Historic Environment, Policy 7.1: Archaeology and Historic Building Recording; Primary Policy 8: Conservation and Enhancement of Biodiversity; Policy 8.1: Biodiversity Duty; Primary Policy 9: Managing Landscape Change; Policy 9.1: Protecting Special Landscapes; Policy 9.3: Landscaping and Planting in Association with Development; Policy 10.1: Development Impact on Trees and Hedgerows; Primary Policy 12: Renewable Energy; Policy 12.1: Wind Energy Developments; Primary Policy 13: The Water Environment; Primary Policy 14: Soil Conservation and Agricultural Land.
- 2.63 Adopted Supplementary Guidance: Wind Energy Developments.

Other Planning Policy

- 2.64 Draft Supplementary Guidance: Biodiversity & Landscape; Developer Contributions; Transport and Access for New Development.
- 2.65 National Planning Framework 3 (NPF3) and Scottish Planning Policy - Para 155 of Scottish Planning Policy (SPP) (October 2014) states – “Development plans should seek to ensure an area’s full potential for electricity and heat from renewable sources is achieved, in line with national climate change targets, giving due regard to relevant environmental, community and cumulative impact considerations.”

- 2.66 Draft National Planning Framework 4 (NPF4) - NPF4 will incorporate Scottish Planning Policy (SPP) which contains detailed national policy on a number of planning topics, meaning that for the first time, spatial and thematic planning policies will be addressed in one place. NPF4 will have the status of the development plan for planning purposes. This is a change to the current position, and will mean that its policies will have a stronger role in informing day to day decision making.
- 2.67 The spatial strategy of the Framework is a shared vision that will guide future development in a way which reflects the overarching spatial principles: sustainable, liveable, productive and distinctive places.
- 2.68 Under 'sustainable places' it highlights the need to diversify and expand renewable energy generation. Under 'productive places' it highlights that the transformations needed to tackle the climate and nature crises, together with the impact of the pandemic, means that green investment is a key priority for the coming years.
- 2.69 Under Policy 2 (Climate emergency) of the Framework it states that "when considering all development proposals considerable weight should be given to the Global Climate Emergency".
- 2.70 Under Policy 19 (Green Energy) of the Framework it states that local development plans should seek to ensure that an area's full potential for electricity and heat from renewable sources is achieved. Outwith National Parks and National Scenic Areas, and recognising the sensitivity of any other national or international designations, development proposals for new wind farms should be supported unless the impacts identified (including cumulative effects), are unacceptable. It states that development proposals for renewable energy developments must take the following into account:
- 2.70.1 net economic impact;
 - 2.70.2 the scale of contribution to renewable energy generation targets;
 - 2.70.3 effect on greenhouse gas emissions reduction targets;
 - 2.70.4 cumulative impacts – taking into account the cumulative impact of existing and consented energy development;
 - 2.70.5 impacts on communities and individual dwellings, including visual impact, residential amenity, noise and shadow flicker;
 - 2.70.6 landscape and visual impacts, including effects on wild land;
 - 2.70.7 effects on the natural heritage, including birds;
 - 2.70.8 impacts on carbon rich soils;
 - 2.70.9 public access, including impact on long-distance walking and cycling routes and scenic routes;
 - 2.70.10 impacts on historic environment assets, including scheduled monuments, listed buildings and their settings;
 - 2.70.11 impacts on tourism and recreation;
 - 2.70.12 impacts on aviation and defence interests including seismological recording;
 - 2.70.13 impacts on telecommunications and broadcasting installations, particularly ensuring that transmission links are not compromised;
 - 2.70.14 impacts on road traffic and on adjacent trunk roads;

- 2.70.15 effects on hydrology, the water environment and flood risk;
 - 2.70.16 the need for conditions relating to the decommissioning of developments, including ancillary infrastructure, and site restoration, opportunities for energy storage; and
 - 2.70.17 the need for a robust planning obligation to ensure that operators achieve site restoration.
- 2.71 Onshore Wind Turbines: Planning Advice (2014).
 - 2.72 Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 – commits Scotland to achieving net zero greenhouse gas emissions by 2045 at the latest, and also sets two interim targets to reduce emissions by 75% by 2030 and by 90% by 2040.
 - 2.73 Wind Turbine Consents: aviation objections and associated negative conditions (January 2012).
 - 2.74 Onshore Wind Policy Statement Refresh 2021: Consultative Draft - Seeks views on Scottish Government's ambition to secure an additional 8-12 GW of installed onshore wind capacity by 2030, how to tackle the barriers to deployment, and how to secure maximum economic benefit from these developments.

Assessment

- 2.75 **Previous Planning Permission:** In November 2013 the applicant submitted an application for planning permission (planning reference: 13/00728/FUL) to construct and operate seven turbines (tip height of 125m) and associated infrastructure. The scheme proposed has a maximum capacity of 21 megawatts (MW) and planning permission was sought for an operational period of 25 years. In March 2015 Stirling Council refused the application on the grounds of limited landscape capacity for additional wind turbines which resulted in significant landscape and visual effects, including cumulatively. The applicant then submitted an appeal (Appeal reference: PPA-390-2039) to the Directorate of Planning and Environmental Appeals (DPEA) in June 2015 which was successful and planning permission was granted.
- 2.76 Whilst it is noted that the refusal of the application outlined above was on the basis of a previously adopted Local Development Plan (LDP 2014), the principles of the key policies for consideration in relation to this proposal are largely the same in the adopted 2018 LDP. The fact that a Reporter granted planning permission for wind turbines on this site in 2015 is a material planning consideration. The weight given to this material consideration needs to be balanced by the fact that the previous development was for seven turbines with a maximum tip height of 125m, generating up to 21MW whereas this proposal is for five turbines (2 turbines with maximum tip height of 180m and 3 turbines with maximum tip height of 149.5m), generating up to 24MW.

- 2.77 **Extant Consented Development:** The planning permission 13/00728/FUL, which was granted at appeal, did not contain a planning condition specifying the time period during which development must be started. Whilst S58 of the Town and Country Act 1997 (as amended) inserts a deemed three year time limit into certain full planning permissions, it is subject to the exceptions set out at S58(4) of the same Act. One of the exceptions is "any planning permission granted for a limited period" (s58(4)(c)). Condition 1 of planning permission 13/00728/FUL stipulated a period of twenty five years for electricity exportation after which the land was to be restored to its former condition. Since this condition is consistent with the definition of a "permission granted for a limited period", it falls within the exceptions set out in s58(4) and the deemed time limit provision does not apply.
- 2.78 It was clear that the intention of the Reporter was that the development should be subject to the standard three year time limit on the commencement period. However, by referring to it in an informative note it does not carry any legal weight. The result is that the consent has no time limit for commencement and remains extant. This means that there is enduring permission for the 7 turbine development as set out in 13/00728/FUL and the applicant has outlined their intention to implement that permission should this proposal be unsuccessful. The fact that there is extant permission for a 7 turbine windfarm on this site is a material planning consideration.
- 2.79 **Increase in Generating Capacity:** Despite this proposal having fewer turbines than the previously consented development (5 turbines as opposed to 7 previously consented) the generating capacity of the proposed windfarm is expected to increase from 21MW to 24MW. In terms of the expected energy generated per annum, the previously consented development was expected to generate 39.6GWhrs from the candidate turbine whereas the proposed development is expected to generate 72.5GWhrs from the candidate turbines.
- 2.80 **Policy:** Local Development Plan Primary Policy 12 (Renewable Energy) states that all renewable energy developments which contribute towards Scottish Government targets to meet electricity demand through renewable energy will be supported where they comply with, in the case of wind energy developments, Policy 12.1.
- 2.81 Policy 12.1 sets out the key policy documents against which any wind energy development will be assessed, highlights that developments will be permitted if they are of a scale, layout and nature such that adverse environmental impacts are avoided or minimised to the satisfaction of the Planning Authority whilst also setting out the criteria against which proposals will be assessed. The criteria follow similar issues set out below such as landscape and visual impact, aviation, road traffic etc.
- 2.82 The spatial framework map within the Local Development Plan indicates this site to be within Group 3 where there is potential for wind farm development, subject to detailed consideration against identified policy criteria. Relevant 'policy criteria' are taken forward in the LDP's Policy 12.1 Wind Energy Developments and supporting supplementary guidance SG: Wind Energy Developments (February 2019), adopted by the Council in February 2019, and therefore part of the LDP.

- 2.83 The Supplementary Guidance 'Wind Energy Developments' provides information and detail to support Policy 12.1. The Supplementary Guidance notes that there remains very little capacity for further windfarm development of varying scales within the study area if the intrinsic qualities of the landscape are to be maintained. The Supplementary Guidance describes the site's 'landscape type' as Lowland Hills: Fintry, Gargunnoch and Touch Hills where the 'wind energy capacity' is regarded as low capacity for 110m and above turbines. Low capacity is defined as a landscape that is both highly sensitive to wind turbine development and has a high value, where only a slight level of change can be accommodated without significantly adversely affecting any of the key defining characteristics of the landscape. The Supplementary Guidance notes that within the Fintry, Gargunnoch and Touch Hills further development of up to 10 turbines may be appropriate subject to compliance with strict locational, siting and design criteria. The Supplementary Guidance identifies that 7 (125m) turbines at Craigton and a single turbine (102m) in the vicinity of Craigannet wind farm were approved, all of which reduces the identified capacity. This proposal is an alternative scheme to the 7 turbines approved at Craigton.
- 2.84 In relation to wind energy developments in the Stirling Local Development Plan area there are a number of considerations identified as being of particular relevance. These follow similar headings to those set out in the EIAR and are summarised in bold type below.
- 2.85 Given proximity of the proposed turbines to the established Kingsburn and Earlsburn windfarms, Supplementary Guidance advice on extensions and re-powering of existing wind farms also applies. It states with regard to Earlsburn Windfarm - Comprising of 15 x 115m height turbines, it is located within the core of the Gargunnoch Hills. It comprises of three rather disparate shallow arcs of turbines, aligned roughly north-south, which present a somewhat sprawling and extensive appearance as they extend across the core of the plateau hills of the area. A 9 x 115m turbine extension, now completed, (i.e. Kingsburn Wind Farm) places considerable constraint on the ability to further extend the overall development. Subject to compliance with strict siting and design criteria there may be some limited potential to infill the gap between the original turbines and the recently completed scheme to the west.
- 2.86 **Traffic and Transport:** The applicant submitted information within the EIAR that considered the potential traffic and transport effects associated with the construction and operation of Shelloch Windfarm on the surrounding public road network and on sensitive receptors. The assessment of environmental effects followed the Institute of Environmental Management and Assessment (IEMA) Guidelines which included severance, driver delay, pedestrian delay and amenity, accidents and safety, dust and dirt.

- 2.87 It is proposed that abnormal loads will only be transported over eight weeks of the 12-month construction period and are one-way only (as vehicles retract to a HGV for the return journey) therefore significant environmental effects associated with these vehicles are not likely. The assessment predicted that, prior to the implementation of any mitigation measures, the associated effect of severance, driver delay, pedestrian delay and amenity, as a result of increased levels of HGVs along Firs Road associated with the development, would be significant. The implementation of a comprehensive Construction Traffic Management Plan (CTMP) will mitigate the identified effects by ensuring that they are minimised as far as possible to a level which is considered to be not significant. The CTMP will identify measures to reduce the number of construction vehicles as well as identifying measures to mitigate the impact of vehicles.
- 2.88 The access route follows the A811 to Arnprior, then along the C36 (referred to as Firs Road in the applicant's submission), and B822 before turning off the public road at Gribloch Farm. The route runs to the west of Gribloch Farm then re-joins the public road at the unclassified Glinns Road before again turning off the public road and following a private track, running west of Easter Glinns, to the site. In order to transport turbine components, some road works are required to re-align C36/Firs Road and the B822. Tracks are also required within the main windfarm site to connect the turbines and other infrastructure.
- 2.89 As part of their submission the applicant has submitted a number of documents which set out the impact of the development traffic on the surrounding transport networks, which includes:
- 2.89.1 Design and Access Statement;
 - 2.89.2 Environmental Impact Assessment (EIA) (Traffic and Transport Chapter);
 - 2.89.3 Abnormal Loads Assessment Review;
 - 2.89.4 Supplementary Information: Scheme of Passing Places and Junction Widening.
- 2.90 It was highlighted that the access route for construction and maintenance traffic follows, in part, along the alignment of Right of Ways: CS64, CS119 & CS120, and Stirling Council Core Path: 9078Gg/09.

- 2.91 The EIA report sets out the anticipated vehicle movements associated with the proposed wind farm and indicates that traffic movements will peak at 2,156 two-way during month seven of the 12-month construction period. The overall two-way movements, across the 12-month construction phase, were anticipated to be 8,730. Whilst Roads considered this increase in vehicle traffic to be negligible on the A811, they considered the impact on the C36, B822 and Glinns Road to be considerable. As such, Roads recommend planning conditions to ensure that traffic associated with the wind farm can be safely accommodated on the existing road network, without causing a detrimental impact to existing road users. It is noted that Arnprior Community Council had requested the provision of a temporary off-carriageway pedestrian route to run alongside the C36. The developer had responded to the Community Council stating that the agent for the landowner has indicated a path was unlikely to be acceptable to the landowner's tenants. A condition has been included within Appendix 1 (Construction Traffic Management Plan) to ensure that, prior to the commencement of development, a management plan for construction traffic is produced in consultation with, *inter alia*, the community council to detail how site traffic will be managed and the impact of construction traffic on, *inter alia*, the C36 and any potential conflict with existing users, which includes pedestrians, cyclists, and vehicular traffic.
- 2.92 The applicant submitted an 'Abnormal Loads Assessment' which considered the worst-case load in terms of the length/width combination. It is anticipated that the components will be transferred by sea to Rosyth Dockyard in Fife and then brought to the site via the motorway and public road network. The Assessment considered the chosen route to the site, and provided a swept path assessment, incorporating a 75m turbine blade (and a total vehicle length of 75m: tractor unit, extendable trailer with blade overhang). The Assessment identified a number of potential pinch points along the route. Those falling within Stirling Councils boundary include (but are not limited to):
- 2.92.1 M9 northbound Slip-road/A84 Roundabout (Craigforth Roundabout).
 - 2.91.2 M9 southbound Slip-road/A84 Roundabout.
 - 2.91.3 A84/Castle Business Park/Castleview Park and Ride Roundabout.
 - 2.91.4 A84/Raploch Road Roundabout.
 - 2.91.5 Raploch Road/A811 Roundabout.
 - 2.91.6 A811/B822 Roundabout.
 - 2.91.7 A811/C36 junction.
- 2.92 The applicant also submitted Supplementary Information which considered the proposed access route along the C36/Firs Road, and the junction where the C36 joins the A811, and how these are to be negotiated by vehicles associated with the construction of the wind farm. The Supplementary Information:
- 2.92.1 Provided details of additional temporary public road access proposals (passing places along Firs Road and junction widening at the A811/Firs Road) during construction in response to comments made by Arnprior Community Council and Stirling Council Roads Department, and consideration of the likely significant environmental effects of such proposals. This illustrated the detail of some of the works which may be required to facilitate access by construction vehicles and abnormal loads up the C36 (Firs Road), from Arnprior.

- 2.92.2 Provided details of changes to two sections of tracks on Firs Road to be used for the transportation of abnormal load vehicles in response to landowner comments, and consideration of any changes to the significance of effects of these proposals.
- 2.93 The Supplementary Information included a number of drawings which set out the proposed areas of the C36 that are highlighted for upgrade, primarily through the provision of road widening to provide additional passing opportunities. These upgrades are proposed at fairly consistent centres along the road and should ensure that vehicle conflicts are minimised. The formal detail of these improvements, with regard to construction specification, shall be agreed through the formal Roads Permit process that will be required in advance of any roadworks commencing.
- 2.94 The Supplementary Information also included revised details of the A811/C36 junction upgrade which included the provision of a wider radius for vehicles approaching from the east and an enhanced road width of 7m, to extend for 20m before tapering down to existing width over a 15m distance. A swept path drawing was provided which evidences that two HGV's can negotiate the junction.
- 2.95 A drawing was also provided which detailed the visibility splays at the A811/C36 junction. Given the speed restrictions within this area Roads considered that the visibility splays could be reduced and a revised drawing should be submitted which also ensure that the applicant has sufficient control over the land to undertake the proposed works and that a Road Safety Audit is undertaken. These matters have been addressed by condition.
- 2.96 It is considered that, with the mitigation proposed and the conditions recommended, the applicant has demonstrated that the concerns raised by third parties have been addressed and that the proposal will comply with Policy 1.1 and Policy 12.1 (c) (ix).
- 2.97 **Landscape and Visual Amenity:** A Landscape and Visual Impact Assessment (LVIA) was included within the EIAR. It was used to identify and assess the effects of change resulting from the proposed development on both the landscape as an environmental resource in its own right, and on people's views and visual amenity. The assessment also included the visual effects of aviation lighting.
- 2.98 The LVIA considered the potential effects of the addition of the proposed development to the existing landscape, against a baseline that includes existing windfarms. The LVIA also considered the combined effect of existing wind farms in the study area and the role that the proposed development would play in the pattern of wind energy development across the area. The effects of night time aviation lighting on Turbines 1 and 2 was considered for each visual receptor. The LVIA also undertook a comparison of the effects of the proposed development with the consented windfarm development (13/00728/FUL).

- 2.99 Judging the significance of landscape effects requires consideration of the nature of the landscape receptor (sensitivity) and the nature of the effect on those receptors (magnitude of change). The nature of the landscape receptors, commonly referred to as their sensitivity, is assessed in terms of the susceptibility of the receptor to the type of change proposed, and the value attached to the receptor. The nature of the effect (magnitude) on each landscape receptor is assessed in terms of its size and scale, geographical extent, duration and reversibility. These aspects are brought together to form a judgement regarding the overall significance of effect. Fifteen viewpoints, as well as settlements (Port of Menteith and Thornhill), routes (A81, A873, B818, B822, B8043 Glinns Road, C36 Firs Road) and paths/Rights of Way were assessed in the LVIA.
- 2.100 The LVIA also considered the impact of the development on designated landscapes, including Local Landscape Areas (LLA) within the Stirling area (including Southern Hills, Keir, Rednock, Western Ochils, Campsie Fells) as well as those of neighbouring authorities. The LVIA identified that visibility of the proposal would generally be contained within the Carron Valley area of the Southern Hills LLA. The LVIA stated that whilst there will be some changes to the experience of this LLA, this was in the context of the existing windfarms at Kingburn, Earlsburn, Craigengelt and Craigannet, and this was experienced as brief views along the public roads. The LVIA stated that the development will form an additional small group of turbines to the west of the existing cluster, on the west side of the Backside Burn valley, and although consisting of larger turbines than those existing, the development has been designed so as to be set on lower ground within the Backside Burn valley. The LVIA concluded that the development will not affect the special qualities for which the LLAs, and other designated landscapes, were designated.
- 2.101 The LVIA identified that two of the turbines (hubs and towers on T1 and T2) will be lit which will mean that the proposed development will be visible from limited locations after dark. It highlighted that the lights will be seen at full intensity only when seen at similar elevations to the lights (around horizontal). When seen from below, light intensity will be reduced with the vertical angle of view. This results in the lights on the hubs being visible at reduced intensities from very limited locations on local roads.
- 2.102 The LVIA stated that mitigation measures for landscape and visual effects were embedded into the design of the scheme that sought to place turbines on ground lower than the turbines of Kingburn and Earlsburn and to create a balanced appearance when seen from the north-west.
- 2.103 The Supplementary Information submission also undertook a landscape and visual amenity assessment on the proposed passing places on Firs Road between Arnprior and the B822, the temporary widening of the junction of Firs Road with the A811 and the amended section of abnormal load track south of Arnprior. The Supplementary Information report noted that the installation of the proposed passing places will not result in the loss of mature trees but there will be short sections of hedges removed. Since passing places will be temporary, the intention is to restore these sections of hedging. The widening of the junction will similarly not result in tree loss but will include hedge removal and, being temporary, will be restored following construction. The amended section of abnormal load track will lead to the loss of mature trees and hedgerows, the developer will seek to minimise this as far as possible.

- 2.104 The previous proposal for a 7 turbine windfarm was refused by the Council due to skyline, hill edge and landscape character. However, the Reporter considered that where significant landscape or visual impacts would arise, these would mainly be either in the close vicinity of the scheme (as is generally unavoidable for any large wind farm development) or at a distance of over ten kilometres to the north. These include the moderately adverse visual impacts on recreational and cultural visitors to the Lake of Menteith and on the A-listed Cardross House and its associated garden and designed landscape. He considered that impacts on views from the south would be largely mitigated by the existing presence of other larger windfarms closer to the viewer.
- 2.105 Whilst turbine numbers have been reduced from 7 to 5, the overall height and rotor diameters have significantly increased. The principal justification for this is greater annualised renewable energy output. The viewpoint information and site visits verify there will be noticeable increases in the magnitude of landscape and visual impacts compared with the consented scheme. Consequently, the current proposal does not comply with the landscape and visual guidance set out in the Supplementary Guidance, for the same reasons previously mentioned i.e. adverse impacts on the skyline and hill edge of the northern escarpment and the introduction of turbines into the presently turbine free Fintry Hills, thereby increasing the extent of windfarm development into areas where the influence of wind turbines is currently limited.
- 2.106 However due consideration has also been given to the reasoning of the Reporter that the appeal for the consented development should be allowed. In summary, visibility from lower areas in the Carron Valley is very restricted. The landscape effect of the proposal on the upper south-eastern slopes of the Carron Valley would be adverse, however effects are minimised due to distances involved. The existence of other wind farms in this view also limits the added cumulative impact of the current proposal. There is a marked 'notch' in the escarpment at the Spout of Ballochleam, which allows the proposed turbines to be visible across a segment of Kippen Muir and the Forth Valley. Turbines will be visible from Kippen Muir and would appear as large, although not dominating, skyline features. The significance of the Spout of Ballochleam as a landscape feature would perhaps be diminished. Intervening landform means that the turbines would not be visible from the floor of the Forth Valley from any distance closer than around eight kilometres. At around 8 and 16 kilometres the role of the Fintry/ Gargunnock Hills escarpment as an imposing enclosing feature is most apparent. The turbines would be on the horizon and their appearance on the escarpment would have a negative impact on the landscape character of the carselands to the north. However this impact would be no more than moderate due to the distance from the proposed turbines, the relatively narrow cone of visibility afforded by the 'gap' at the Spout of Ballochleam and the visual containment of the turbines within this gap.
- 2.107 It is the case then that whether the consented Craigton and Spittalhill development or the proposed Shelloch development is implemented a cluster of turbines will be created on this site. Whilst the increase in blade tip height and rotor diameter intensifies the landscape and visual impacts identified by the reporter, after careful consideration they are not deemed to be so significant as to warrant the refusal of planning permission on account of significantly adverse landscape and visual impacts.

- 2.108 In particular changes in the magnitude of visual and landscape impacts will still only be mainly visible from limited areas in the locality, i.e. as per the circumstances identified above:- i) higher up the south east slopes of the Carron Valley, ii) Kippen Muir, iii) from the northern side of the western Carse of Stirling such as the localities of Thornhill and Port of Menteith on account of the relatively narrow cone of visibility afforded by the gap between the Fintry and Gargunnock/Touch Hills, with impacts being ameliorated by the separation distance and established impacts from other windfarms in the locality.
- 2.109 It also remains the case that settlements within ten kilometres of the proposal - Gargunnock, Kippen, Buchlyvie, Balfron and Fintry - would have no view of the scheme. Whilst potentially visible from Port of Menteith (14 kilometres distant) and Aberfoyle (17 kilometres) overall separation distances moderate impacts. Theoretical views from main roads towards the site are also regularly interrupted by roadside trees, hedges and buildings.
- 2.110 The Supplementary Guidance indicates limited capacity for further wind energy development in the Fintry and Gargunnock/Touch Hills. Both the consented and proposed developments effectively utilise this identified capacity, most clearly demonstrated in the wireline and montages from the elevated viewpoint of Tomtain in the Carron Valley. It is considered however that irrespective of what development is implemented, in conjunction with the existing wind energy developments, this remains a 'Landscape with Windfarms' where wind farms are an obvious but not dominant characteristic. Wind energy development beyond this would however result in a 'windfarm landscape' and fundamentally and adversely alter the key landscape character and visual experience of this landscape type. This is also recognised in the applicant's design strategy which notes development deeper into the Fintry Hills would spread across the site and result in extensive visibility from the north.
- 2.111 The comments from Loch Lomond & Trossachs National Park noted that whilst there will be some visibility of the turbines from some areas of the National Park, the presence of additional turbines in this particular location was considered as not having any significant adverse visual impact on the landscape setting of the National Park and its principal gateway. They noted that when viewed from Port of Menteith all five turbines will be visible on the skyline during the day, however they agreed with the findings of the Landscape and Visual Assessment for this viewpoint that "the Development will be seen as five additional turbines on the hill horizon" but also note that it will be read as part of the existing Kingsburn windfarm, which is west of the proposal.
- 2.112 The National Park noted that, due to proximity to Earlsburn and Kingsburn windfarms, Shelloch will be seen in the context of the existing Earlsburn group from viewpoints within the National Park area. Moreover, the turbines will be on distant hill horizons and the magnitude of change will be negligible and the visual effects will not be significant due to existing topography and woodland cover.
- 2.113 **Aviation Lighting:** A number of consultees (NatureScot, Loch Lomond and Trossachs National Park Authority as well as Community Councils) and third parties raised concerns that aviation lighting may have significant landscape and visual effects. The applicant undertook further technical analysis of the aviation lighting.

- 2.114 Legislation requires visible aviation warning lights (medium intensity steady red lights visible at night) to be fitted on obstacles in excess of 150m. This means that two lights (2000 candela) need to be fitted on top of the nacelle (hub) of each of the two turbines over 150m. One light would be on and the second would only come on if the first light fails. At least 3 (32 candela) steady red lights need to be located at half the tower height providing 360 degree coverage. None of the lights would be required to flash. Candela is the output of light. Intensity in candela is the brightness of the light but how this is perceived depends on the distance from the light (light spreads out as it propagates so its perceived brightness drops off) and the clarity of the atmosphere (any cloud/rain/fog makes light appear dimmer).
- 2.115 The lights on the nacelles are designed to be seen in a relatively narrow beam. The standards require that they have a minimum average intensity at the horizontal and up to 3 degrees above the horizontal of 2000 candela and at -1 degree (below horizontal) of 750 candela. The lights need not be seen beyond this four degree band because they are designed to be seen by planes flying towards them. Outwith this band, lights can be designed so that their intensity is significantly reduced.
- 2.116 The lights will only be seen at peak intensity from elevations which are comparable to the hub height of the turbines which, in the immediate vicinity, are the slopes facing the turbines on the Fintry and Gargunnock Hills. The lights will be seen at much lower intensity at lower elevations. Having carefully considered the findings of the assessment it is concluded the aviation lighting will not be a significant feature in low light or night time views.
- 2.117 The ZTV (Figure 6.11 & Figure 6.11a) shows that the only places within the Carron Valley Community Council area where lights will be experienced at peak intensity are on the top of Cairnoch Hill, Hart Hill and Earls Seat. Lights will not be visible from the B818 due to a combination of forestry and topographical screening of the hubs of the turbines. The applicant's light expert assessed the impact that aviation lights may have on any proposed Dark Sky Initiative in the Carron Valley and concluded that the proposal was unlikely to damage any Initiative as they will be visible as relatively faint red points from those low lying areas where they are visible. Since there are only two of them, they do not define a landscape even when viewed from higher areas. A condition has been recommended to ensure that the aviation lighting scheme is agreed in advance of any turbine being erected and that the lighting scheme is kept under review to ensure that the latest technology is utilised.
- 2.118 The National Park Authority reviewed the night time viewpoint from Port of Menteith (Viewpoint 9) and note that the aviation lights present on T1 and T2 will be visible and a significant (moderate) effect is anticipated, but determine that the impact would be localised and in an area where night time lighting is already present from settlements and individual properties. They noted that Ben More-Ben Ledi Wild Land Area is over 20km away from the nearest turbine and agreed with the Environmental Statement that the lights on the turbines at 180m will be seen in conjunction with the well-lit Inner Forth area.
- 2.119 **Geology, Hydrology, Hydrogeology and Peat:** The EIAR considered nearby designated sites (SAC, SSSI), climate, geomorphology, geology, soils and peat, hydrogeology including groundwater dependent terrestrial ecosystems (GWDTE).

- 2.120 A GWDTE Report was included within the EIAR which concluded that, taking account of the assessment, with revised groundwater dependency values of 'Low' based on the evaluation of local characteristics, plus the adoption of appropriate drainage embedded mitigation measures, groundwater dependent terrestrial ecosystems (GWDTE) are not considered likely to be subject to a significant effect. The mitigation included SuDs, micro-siting of track to avoid areas of potential GWDTE, peat storage and reuse in areas of GWDTE to avoid causing long-term alterations in local hydrological conditions.
- 2.121 SEPA accept the conclusions of the groundwater dependent terrestrial ecosystems (GWDTE) report that all potential GWDTE within the survey area had low dependency on groundwater and that the water supply to these habitats comes from precipitation and surface water flows.
- 2.122 The EIAR notes that Scottish Planning Policy highlights that carbon-rich soils, deep peat and priority peatland habitat importance classes 1 and 2 from the Carbon and Peatland Map are within Group 2 ('areas of significant protection') where development should demonstrate that effects can be substantially overcome by siting, design or other mitigation. Approximately 0.01% of the site falls within Class 1, with no Class 2 identified within the site. Approximately 86% of the site is within Class 5 which does not indicate a peatland habitat. Given that peat was present within the site, peat-specific work was undertaken including peat probing for use in a site-specific peat stability risk assessment, a soil and peat management plan and a carbon emission evaluation, all of which were provided in appendices to the EIAR. The average peat depth was 0.49m and 86% of peat depth records less than 1m.
- 2.123 SEPA noted that there are likely to be opportunities for restoration of the modified bog to blanket bog. SEPA stated that peat restoration proposals, including after care and monitoring, should be detailed in the Habitat Management Plan. This has been addressed in the proposed conditions. SEPA noted that the impacts/mitigation upon groundwater abstractions and buffers had been assessed and was satisfactory and that the mitigation including pollution prevention measures appeared to have been covered satisfactorily. SEPA required an updated Peat Development Plan which the applicant addressed through the submission of Supplementary Information. SEPA was content with the information provided and requested that a condition requiring the submission of a Detailed Soil and Peat Management Plan prior to commencement of construction. This condition has been included within the list of proposed conditions.

- 2.124 In terms of surface water quality, the objective is to keep construction phase and post-development run-off to pre-development levels, in terms of both quality and quantity. Many of the site watercourse catchments are within a Drinking Water Protected Area (Surface Water) which was considered in the EIAR since there are potential pathways from site activities to downstream intakes. The pollution effect on public water supplies is considered minor and of low probability to occur. The applicant will consult with Scottish Water at the pre-construction stage. 12 private water supplies were identified with the supply locations evaluated for location relative to site and for potential site influence to determine potential pollutant source-pathway-receptor relationships. Further investigation and monitoring activities will be undertaken pre-construction to ensure sources, pathways and related infrastructure are identified. The applicant will undertake good practice measures and robust pollution prevention. While most of this will be addressed by other regulatory regimes, it will also be implemented through the Construction and Decommissioning Environmental Management Plan (CDEMP), as set out in the proposed condition. It is considered that the proposal accords with Stirling Local Development Plan Policies 3.2 (Site Drainage) and 4.2 (Protection of Carbon-Rich Soils).
- 2.125 **Ecology:** The EIAR included the following surveys: habitat, Groundwater Dependent Terrestrial Ecosystems (GWDTE), otter, water voles, badger, pine marten, red squirrel, great crested newt, reptile and bats. Most of the aforementioned were then scoped out of the assessment due to lack of suitable habitat, lack of desk-based or field evidence etc. The Habitat Management Plan, recommended as a condition of consent, will reduce any potential effects and will seek to provide biodiversity net gain. It is considered that the proposal accords with Stirling Local Development Plan Primary Policy 8 (Conservation and Enhancement of Biodiversity) and 8.1 (Biodiversity Duty).
- 2.126 **Ornithology:** The EIAR included an assessment of the proposed development on raptors and owls, waders, wildfowl and gulls. The effect on birds was considered to be negligible and not significant in the context of the EIA Regulations however the Habitat Management Plan, recommended as a condition of consent, will be developed to reduce the likelihood of any potential displacement effects to lekking black grouse, breeding curlew and to provide biodiversity enhancement at the site. It is considered that the proposal accords with Stirling Local Development Plan Primary Policy 8 (Conservation and Enhancement of Biodiversity) and 8.1 (Biodiversity Duty).
- 2.127 **Cultural Heritage:** Two study areas were used for the assessment – an Inner Study Area encompassing the application site where direct effects arising from the construction of the development could be received and an Outer Study Area which encompassed an area extending 10km from the outermost turbines of the development where the settings of designated heritage assets may be affected. Whilst lying outwith the Outer Study Area, Inchmahome Priory and Rednock House were also included, as requested by Historic Environment Scotland.

- 2.128 Twenty-six heritage assets were identified within the Inner Study Area, mainly associated with medieval or later settlement and agrarian activity. Taking into consideration the limited number and low density distribution of heritage assets identified within the Inner Study Area, and the available evidence of historic and current land-use, the potential for undetected, buried remains of archaeological deposits to survive within the site was assessed as being low, except around the possible site of the former 'Arnfinlay' Castle, in the vicinity of a burnt mound and in the vicinity of a battle site where there is a moderate potential for possible buried remains.
- 2.129 A professionally qualified Archaeological Contractor is to be appointed to act as an Archaeological Clerk of Works (ACoW) for the duration of the construction phase. The activities of the ACoW would be carried out in accordance with the scope of the work and terms specified under the Written Scheme of Investigation (WSI) as set out in the proposed condition: Programme of Archaeological Works. Where there is potential for buried remains the mitigation is generally an archaeological watching brief, which is also included within the proposed condition, however most of the heritage assets are identified as low/negligible sensitivity where either mitigation is not required or disturbance is kept to a minimum through measures such as micro-siting. The Council's Archaeologist considered the chapter of the EIAR relating to potential physical and setting impacts on Cultural Heritage "thorough and competent document". He agreed with the proposed mitigation for the potential physical impacts.
- 2.130 The assessment of operational effect of the development on the settings of heritage assets within the Outer Study Area was carried out with reference to the layout of the development and locations of those designated cultural heritage assets that fall within the blade tip height Zone of Theoretical Visibility and from which there is some predicted degree of intervisibility with the turbines. Photomontages and wireframe visualisations were provided for a number of designated heritage assets within the Outer Study Area and inform the assessment. The assessment resulted in the identification of either minor or negligible effects within the Outer Study Area. The EIAR outlines that a key consideration in the development design process was mitigating potential setting effects so no additional mitigation measures are proposed in relation to the likely operational effects of the development. Historic Environment Scotland agreed with the conclusion of the EIAR that the proposed development would cause minor effects on twelve Scheduled Monuments, one Inventory Garden and Designed Landscape and one A-Listed Building, all of which fall within the remit of Historic Environment Scotland. However, Historic Environment Scotland considered the impact on the Todholes Cairns had been underestimated. They considered that Turbine 5 would be particularly dominant in views from the monument and from one monument to the other. In Historic Environment Scotland's view, although the impact on the setting of the monuments was not at such a level to warrant an objection to the development proposal, they considered that it is likely to be higher than the 'minor' given in the assessment and more 'moderate' in nature. They considered that, if the Planning Authority considered the impact to be significant, a reduction in height of Turbine 5 would be a suitable mitigation measure. The cairn appears as a large mound on an otherwise flat terrace where the main views are concentrated to the south and east across the Carron Valley. It is not considered that the impact is significant to warrant a reduction in the height of Turbine 5. Indeed, The Council's Archaeologist considered that the impact on setting, including the setting of Scheduled Monuments, was minimal, in part due to the existing windfarm making the

monuments less sensitive to further change, and had no objections or recommended mitigation on setting issues. It is considered that the proposal accords with Stirling Local Development Plan Primary Policy 7 (Historic Environment) and Policies 7.1 (Archaeology and Historic Building Recording), 7.3 (Development affecting Listed Buildings) and 7.8 (Development affecting Battlefields, Gardens and Designed Landscapes).

- 2.131 **Noise:** Direct noise effects on residential receptor locations were assessed in terms of construction works and construction vehicles passing along local roads. Operational noise effects from wind turbines on residential receptor locations surrounding the development were scoped out of the EIAR as preliminary desk-based study undertaken to inform the EIA scoping demonstrated that operational noise levels at the closest residential receptors will meet the noise limits set for the previously consented development. The same noise conditions have also been included within the proposed conditions recommended. Effects of infrasound were also scoped out since research had concluded that infrasound was not the perceived health threat suggested by some observers.
- 2.132 Construction works are of a temporary nature. Assessment of the temporary effects of construction noise is primarily aimed at understanding the need for dedicated management measures and the types of measures required. Effects at residential properties within 200m of proposed construction works were considered. The assessment showed that no significant effects were predicted and therefore no specific mitigation was required. Nonetheless a noise control plan will, as part of the Construction and Decommissioning Environmental Management Plan (CDEMP), be produced which will include procedures for ensuring compliance with statutory and other identified noise control limits, procedures for minimising noise from construction related traffic on the existing road network, training for staff/operatives and procedures for contacting residents to advise them prior to noisy construction activities.
- 2.133 **Socio-Economic:** Approximately 30 people (30 Full Time Equivalents (FTEs)) will be employed during the construction of the development. Once turbine manufacturing, leakage and displacement factors have been taken into account (leakage: assumes that all construction work will not be secured by local residents; displacement: assumes that individuals may leave their current employment to secure work in construction project), the net employment benefit to the local economy during construction is 1.5 FTE. It was predicted that one permanent site operator will be employed (1 FTE) to oversee the operation and maintenance of the development during its lifetime and that indirect and induced job creation would amount to 1.7 FTE. The cost of construction will be approximately £1 million per megawatt (MW) for the development - £24 million. The EIAR forecast that up to 10% of the overall value of contracts could be realised in the Stirling area (£2.4 million).
- 2.134 **Tourism:** The EIAR notes that a research report (Biggar Economics, July 2016, 'Wind farms and tourism trends in Scotland') highlighted Stirlingshire as having the fifth highest concentration of sustainable tourism workers, and therefore had a considerable reliance on this sector. The report indicated that at local authority level, the development of onshore wind farms did not have a detrimental effect on the tourism sector. The EIAR highlights that the effect that changes of view will have on tourism will depend on the personal opinion of the viewer. The operation of the wind farm will not prevent people from visiting the area. It is not considered that the limited impact of the development on Stirling's tourist industry is sufficient to warrant refusal of the application.

- 2.135 **Climate Change:** The EIAR highlights that the “impacts of climate change are widely recognised as being one of the greatest global economic, environmental and social challenges facing the world today. A major cause of climate change is a rise in the concentration and volume of greenhouse gases in the atmosphere, a significant contributor to which, is the use of fossil fuels to generate electricity, provide heat and to fuel transport. The purpose of the Development is to generate electricity from a renewable source of energy, offsetting the need for electrical generation from the combustion of fossil fuels and to add capacity to the electrical generating potential to facilitate a decarbonisation of heat and transport networks. Consequently, the electricity that will be produced by the Development will result in a saving in emissions of carbon dioxide (CO₂) with associated environmental benefit”.
- 2.136 The EIAR include a Carbon Report which sought to calculate the ‘pay back’ of carbon dioxide emissions for the development. ‘Pay back’ means the length of time that needs to expire before the development is considered to be a net avoider of emissions rather than a net emitter. This proposed development is calculated to have a payback period of 18 months and a carbon saving totalling approximately 1,129,740 tCO₂ over its operational lifetime. The proposed development is expected to power around 22,895 homes.
- 2.137 The benefit of this development in terms of generate electricity from a renewable source of energy, which offsets the need for electrical generation from the combustion of fossil fuels, is a material planning consideration.
- 2.138 **Aviation:** The main concern with regard to wind farm development on aviation relates to safety. Impact on safety can relate to turbines creating a physical obstruction or impacts on radar/Air Traffic Services (ATS) where turbine clutter appearing on radar display can affect the safe provision of ATS as it can mask unidentified aircraft from the air traffic controller and/or prevent them from accurately identifying aircraft under control. Since the site is not within a military tactical training area, effects on low flying aircraft did not require to be assessed.
- 2.139 The EIAR assessed the Primary Surveillance Radar at Cumbernauld, Kincardine, Glasgow and Edinburgh airports, Holehead Meteorological Radar and NATS En-Route Primary Surveillance Radar at Lowther Hill. Whilst all five turbines are within Line of Sight of Holehead Meteorological Radar, any effect on the radar would be minimal providing the tip height altitude of the turbines is below the radar’s beam at its lowest elevation of 558m above sea level. The current proposals have the highest tip height at 4m under this threshold (Turbine 5: 554m). Noting that there is a micrositing allowance of 50m, the relevant proposed condition set out in Appendix 1 also ensures that the tip height does not exceed 558m.
- 2.140 The turbines are also within Line of Sight of Lowther Hill Primary Surveillance Radar. NATS undertook a Technical and Operational Assessment of the proposed development. This assessed the impact of the five turbines on the relevant radar systems. The assessment concluded that all turbines would have an adverse impact on Lowther Radar and Turbine 5 would have an adverse impact on Kincardine Radar. The users of that radar (Prestwick Air Traffic Control) considered the technical impact to be unacceptable.

- 2.141 NATS investigated mitigation measures such that it identified a technical mitigation for this site. NATS and the applicant are finalising contractual agreements to secure the implementation of this mitigation. As advised by the Scottish Government, the Planning Authority has evidence that technical mitigation has been identified within a reasonable timeframe and it is therefore competent to recommend consent with negative conditions to address aviation issues. This matter has been address within the proposed condition: Air Traffic Safety Mitigation Plan.
- 2.142 Cumbernauld Airport, Thornhill aerodrome and the Scottish Flying Club raised concerns in regard to the proposed development. The concerns were that flights will be impacted on safety grounds by the proposed turbines due to the lack of available airspace to transit the wind farm site, turbulence and possibly compromised areas for forced landings. They considered that the proposal would have a safety impact on light aircraft as they would be funnelled through a narrow airspace due to the established limitations of controlled airspace and existing wind farms. They were also concerned that aircraft could experience turbulence from the blades. The developer's aviation expert included an assessment of the specific issues raised within a Supplementary Information submission.
- 2.143 Airspace is considered in terms of horizontal and vertical separation:
- 2.144 Horizontal separation: It was noted that in the proposed location of the wind farm, the airspace between the surface (ground) and 3,000 feet above mean sea level was uncontrolled whereas between 3,000 and 6,000 feet above mean sea level airspace was controlled (Class D) airspace. An area to the south west of the site was controlled airspace from surface to 3,000ft. Pilots can fly in uncontrolled airspace but need permission from the controlling authority to fly in controlled airspace. In this case the controlling authority is Glasgow CTR. In practice, permission to fly in controlled airspace would not be given for light aircraft transiting the area therefore pilots need to avoid it, as well as obstructions such as wind turbines. The minimum horizontal separation between the proposed turbine and the controlled airspace is approximately 3.19km. Noting that the minimum horizontal separation between the consented turbine and the controlled airspace was approximately 3.58km. Both these distances are greater than the existing minimum horizontal airspace corridor of 2.33km between a turbine (Craigannet) from the existing wind farm in this area and the controlled airspace. This proposal will therefore result in a reduction in the horizontal separation between the turbines and the controlled airspace when compared to the consented scheme but will remain larger than the separation between the controlled airspace and the nearest existing turbine.
- 2.145 Vertical separation: Airspace above the area of the proposed wind farm is controlled from 3,000 feet above mean sea level. This means that light aircraft must fly below this level. The maximum turbine blade tip altitude is approximately 1817ft above mean sea level (554 metres) and a minimum clearance of 500 feet (152m) is required above the turbines. The vertical airspace available above the proposed turbines is 682ft (below controlled airspace but above the turbine when taking clearance into account) whereas the consented scheme had 904ft and the existing turbines have 725ft.

- 2.146 The developer's aviation expert concluded that "the effect of the proposed development in terms of restrictions on air traffic in the area is a small increase compared to the consented development" and that the "difference is not significant in the context of traffic flying into Cumbernauld" Airport.
- 2.147 Turbulence: The Civil Aviation Authority's publication 'CAP 764' noted that there are "currently no Mandatory Occurrence Reports (MOR)18 or aircraft accident reports related to wind turbines in the UK. However, the CAA has received anecdotal reports of aircraft encounters with wind turbine wakes." The developer's aviation expert noted that the proposal was for fewer turbines (5 turbines) than the consented scheme (7 turbines) therefore the number of turbines that could produce turbulence would be reduced. The proposed turbines are higher than the consented turbines which could increase the range at which turbulence could be experienced and the footprint of the proposed and consented schemes are similar. The developer's aviation expert concluded that the turbulence effects associated with the proposed scheme was likely to be similar to those associated with the consented scheme.
- 2.148 Given the difference of opinion between the operators of Cumbernauld Airport and the developer's aviation expert, the Planning Authority commissioned its own independent aviation expert to assess the issues raised. Cyrrus reviewed the documentation presented coupled with the evidence with the UK Air Navigation Order and associated Civil Aviation Authority policy, regulations and guidance, and concluded that:
- The proposed development will not cause any additional impact to the airspace in the environment. This is based on the existing wind farm environment, high terrain and the 2NM buffer zone guidance.
 - The objections, whilst there is validity to the concerns raised, need to be addressed in a coordinated manner with substantiated evidence through the appropriate aviation authority.
- 2.149 It is therefore concluded that while there will be a negative impact on aviation this impact is considered to be minor when taking the consented scheme into account. It is considered that the difference in impact generated by this proposed scheme is not sufficient to warrant refusal of the application.

Other Material Considerations

- 2.150 National Planning Framework 3 and Scottish Planning Policy support the expansion of renewable energy generation capacity. Paragraph 169 of Scottish Planning Policy sets out a number of criteria to consider in relation to energy infrastructure, including net economic impact (including local and community socio-economic benefits), the contribution towards renewable energy targets, the effect on greenhouse gas emissions, cumulative impacts, landscape and visual impacts, impacts on the historic environment and impacts on tourism and recreation. These factors are largely considered above. It is clear that national policy expects possible impacts on the landscape and visual receptors to be balanced against possible environmental and economic benefits.

- 2.151 Scottish Planning Policy also introduces a presumption in favour of sustainable development. Paragraph 29 states that this includes giving due weight to net economic benefit and supporting the delivery of energy infrastructure, but also protecting the landscape. The thrust of national policy is therefore to give due weight to the range of factors contributing to sustainable development. In this case, it is considered that the development would constitute sustainable development because it would support the delivery of energy infrastructure and climate change mitigation, while having an acceptable impact on the landscape.
- 2.152 Scottish Government policy supports renewable energy developments in the right location with NPF4 providing the most up-to-date stance of the Scottish Government. It highlights (Policy 19 - Green Energy) that local development plans should seek to ensure that an area's full potential for electricity and heat from renewable sources is achieved and that development proposals for new wind farms should be supported unless the impacts identified are unacceptable.

Conclusion:

- 2.153 There is 'in principle' support for the development under Scottish Government planning, energy and climate change policy, guidance and targets, which are identified material considerations in the determination of applications for planning permission for renewable energy projects. It is anticipated there will be an annualised 83% increase in electricity output from the proposed development compared with the consented scheme. The merits of individual proposals do however require to be carefully considered against the full range of environmental, community, and cumulative impacts. Landscape and visual impacts are the most significant consideration.
- 2.154 In the same locality planning permission has been previously granted on appeal (Nov. 2015) for seven wind turbines (up to 125 metres to blade) tip, known as the Craigton and Spittalhill windfarm. For the reasons mentioned above, this appeal decision is capable of implementation at any time, and this 'fall back position' is a material consideration in the determination of the current application. It is the case that, whether the consented Craigton and Spittalhill development or the proposed Shelloch development is implemented, a cluster of turbines will be created on this site.
- 2.155 Whilst the increase in blade tip height and rotor diameter of the proposed development intensifies the landscape and visual impacts identified in the appeal decision letter, after careful consideration and with due account taken of the substantial increase in power output, they are not deemed to be so significant as to warrant the refusal of planning permission on account of adverse landscape and visual impacts. In particular, changes in the magnitude of visual and landscape impacts will still only be mainly visible from limited areas, as confirmed by mapping indicating the Zones of Theoretical Visibility. Impacts across other relevant planning and environmental considerations have been satisfactorily assessed and no impacts are deemed so sufficiently adverse to contravene relevant policy and guidance.
- 2.156 Overall, it is concluded that the proposal complies with the Development Plan and, having taken due account of the substantial increase in power output from the proposed development, it is recommended that, on balance, planning permission should be granted, subject to appropriate planning conditions recommended in Appendix 1.

3. Implications

Equalities Impact

3.1 This application was assessed in terms of equality and human rights. Any impact has been identified in the Consideration/Assessment section of this report.

Fairer Scotland Duty

3.2 This section is not applicable.

Climate Change, Sustainability and Environmental Impact

3.3 An Environmental Impact Assessment is not required

Other Policy Implications

3.4 All relevant policies have been set out within Considerations of this report.

Consultations

3.5 As set out within Considerations of this report.

4. Background Papers

4.1 Planning Application file 20/00840/FUL. File can be viewed online at: [View Application](#)

4.2 List of determining plans:

Stirling Council Plan No.	Name	Ref on Plan
01	Location Plan	
02	General	70064664-WSP-D-0027 revB
03	Sections	70064664-WSP-D-0032 revB
04	Sections	70064664-WSP-D-0025 revB
05	Sections	70064664-WSP-D-0031 revB
06	Details	70064664-WSP-B-D-0014F
07	Details	70064664-WSP-D-0029 revB
08	Details	70064664-WSP-D-0030 revB
09	Details	70064664-WSP-D-0032 revB
10	Details	70064664-WSP-D-0028 revB
11	Details	70064664-WSP-B-D-0017F
12	Details	70064664-WSP-B-D-0015F
13	Details	70064664-WSP-B-D-0016F
14	Details	70064664-WSP-D-0026 revB
15	Details	70064664-WSP-B-D-0003B
16	Details	70064664-WSP-B-D-0017F
17	Details	70064664-WSP-D-0024 revB
18A	Details	10936012//GL/001h
19	Details	70064664-WSP-D-0008 revC
20A	Details	10936012//GL/001b revA
21A	Details	10936012//GL/001d rrevA
22	Details	70064664-WSP-B-D-0012F
23	Details	70064664-WSP-B-D-0010F
24	Details	70064664-WSP-B-D-0011F
25	Details	10936012//GL/001c

26	Details	10936012/I/GL/001e
27	Details	10936012/I/GL/001f
28	Details	10936012/I/GL/001g

5. Appendices

- 5.1 Appendix 1 – Conditions and Reasons.
5.2 Appendix 2 – Location of Development.

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Name	Designation	Date
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Details of Convener(s), Vice Convener(s), Portfolio Holder and Depute Portfolio Holders (as appropriate) consulted on this report:	Cllr Alasdair MacPherson Cllr Danny Gibson
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Wards affected:	Ward 2 Forth & Endrick
Key Priorities:	N/A
Key Priority Considerations:	N/A
Stirling Plan Priority Outcomes: (Local Outcomes Improvement Plan)	N/A

Construction and operation of Shelloch Wind Farm including five wind turbines with associated access and infrastructure including tracks, hard standing, control building, borrow pit and anemometer mast at Land 2KM North West Of Wester Cringate And South Of Ling Hill, Fintry - Force 9 Energy LLP And EDFR - 20/00840/FUL

Approve, subject to the following conditions

1. **Duration of Planning Permission:** This planning permission will lapse on the expiration of a period of **five years** from the date of this decision notice, unless the development to which the permission relates is begun before that expiration.

Reason: In order to define the duration within which this permission must be implemented as required by Section 58 of the Town and Country Planning (Scotland) Act 1997.

2. **Duration of Consent:** This permission shall be for a period of **thirty** years from the date when electricity is first exported from any of the wind turbines to the electricity grid (the "First Export Date"). Written notification of the First Export Date shall be given to the Planning Authority no later than 14 days after the event.

Within twelve months of the end of the 35 year period, unless a further planning application for any or all of the turbines has been submitted and approved, all wind turbines, ancillary equipment and buildings shall be dismantled and removed from the site and the land restored to its former condition, or such other means of restoration as to be agreed in writing with the Planning Authority.

All relevant areas shall be recorded photographically before the development commences in order to establish their former condition and the photographs shall be submitted to and agreed in writing by the Planning Authority prior to the commencement of works on site.

Reason: To establish the expected lifespan of the development and ensure the reinstatement of the site to its former condition in the interests of visual amenity.

3. **Air Traffic Safety Mitigation Plan:** No wind turbine shall be erected unless and until an Air Traffic Control Radar Mitigation Scheme ("ATCRMS"), to address the impact of the wind turbines upon air safety, has been submitted to, and approved in writing, by the Planning Authority.

The ATCRMS is a scheme designed to mitigate the impact of the development upon the operation of the Lowther Hill radar operated by the National Air Traffic Service (NATS). The ATCRMS shall set out the appropriate measures to be implemented to mitigate the impact of the development on the radar and shall be in place for the lifetime of the development providing the radar remains operational.

The development shall be implemented strictly in accordance with the details set out in the approved ATCRMS.

Reason: In the interest of air traffic safety.

4. **Micrositing:** The locations of the turbines, switchgear building, transformers, cabling and other infrastructure may be moved up to 50 metres from the positions shown in the application papers. However, notwithstanding the foregoing, all turbines will have a tip height elevation below 558m above mean sea level.

Reason: To enable necessary minor adjustments to the position of the turbines (without impinging on radar) and access tracks to allow for site-specific conditions.

5. **Turbine Failure:** If any wind turbine(s) fails to produce an electricity supply to the grid for a continuous period of 12 months then, unless otherwise agreed in writing by the Planning Authority, the wind turbine and any associated above ground infrastructure solely required for that turbine(s), together with turbine foundations to a depth of 1 metre below ground level shall be dismantled and removed from the site and the area around the turbine restored in accordance with a scheme to be submitted to and approved in writing by the Planning Authority. The scheme shall be submitted to the Planning Authority within three months of the expiry of the 12 month period and shall include a timetable for its implementation.

Reason: To ensure that any redundant wind turbine is removed from the site, in the interests of safety, to minimise the level of visual intrusion and to ensure the satisfactory reinstatement of the site.

6. **Turbine Colour:** The approved turbines shall be painted in a colour which integrates visually with the site and surrounding landscape. Prior to the construction of the turbines, details of the external colouring of the turbines (and external transformers) shall be submitted to and approved in writing by the Planning Authority.

Reason: In the interests of landscape and visual amenity.

7. **Details of Control Building:** Details of the design and external materials of the control building shall be submitted to and approved in writing by the Planning Authority prior to the commencement of works on site.

Reason: In the interests of landscape and visual amenity.

8. **Turbine Blade Rotation:** All turbine blades shall rotate in the same direction (anti-clockwise or clockwise).

Reason: In the interests of landscape and visual amenity.

9. **Control Over Displays:** No symbols, signs or logos or other lettering (except those required to comply with Health & Safety legislation) shall be displayed on any part of the turbines, or any building or structures, without the written consent of the Planning Authority.

Reason: In the interests of visual amenity.

10. **Restoration of Temporary Construction Areas:** On the completion of the construction phase of the development, the compound area, site office area and associated car parking, site entrance, storage and working areas shall be restored to their previous condition before the development took place. The areas shall be recorded photographically before the development commences in order to establish their previous condition. All photographs shall be submitted to and agreed in writing by the Planning Authority prior to commencement of works on site.

Reason: To minimise the impact of the development on the surrounding landscape.

11. **Borrow Pit Details:** Prior to any works commencing in relation to the Borrow Pits, precise details of the location, extent, depth, means of working, means of draining and method, timing and details of restoration of any proposed borrow pits shall be submitted to, and approved in writing by, the Planning Authority in consultation with SEPA.

Reason: In the interests of environmental protection, preserving natural habitat and to ensure satisfactory habitat restoration and minimisation of carbon loss.

12. **Electrical Cabling:** All electrical cabling between the individual turbines and between the turbines and the switchgear building on the site shall be installed underground. No cabling shall be laid except alongside the approved access tracks unless a scheme is submitted to and approved in writing by the Planning Authority and works are carried out in accordance with the approved scheme.

Reason: In order to ensure a satisfactory appearance in the landscape and to ensure ecological impacts are acceptable.

13. **Decommissioning, Restoration and Aftercare Strategy:** No development shall commence unless a decommissioning, restoration and aftercare strategy has been submitted to and approved in writing by the Planning Authority in consultation with NatureScot and SEPA. The scheme shall detail measures for the decommissioning of the development, restoration and aftercare of the site and will include, without limitation, proposals for the removal of the above ground elements of the development, the treatment of ground surfaces, the management and timing of the works, and environmental management provision.

Reason: In order to minimise the level of visual intrusion and to ensure the satisfactory re-instatement and restoration of the site.

14. **Decommissioning, Restoration and Aftercare Plan:** No later than three years prior to decommissioning of the development or the expiration of this consent (whichever is the earlier) a detailed decommissioning, restoration and aftercare plan, based upon the principles of the approved decommissioning, restoration and aftercare strategy, shall be submitted to the Planning Authority for written approval in consultation with NatureScot and SEPA. The detailed decommissioning, restoration and aftercare plan will provide updated and detailed proposals for removal of above ground elements of the development, the treatment of ground surfaces, the management and timing of the works and environment management provisions which shall include:

- (a) a site waste management plan (dealing with all aspects of waste produced during the decommissioning, restoration and aftercare phases);

- (b) details of the formation of the construction compound, welfare facilities, any areas of hardstanding, turning areas, internal access tracks, car parking, material stockpiles, oil storage, lighting columns, and any construction compound boundary fencing;
- (c) a dust management plan;
- (d) details of measures to be taken to prevent loose or deleterious material being deposited on the local road network including wheel cleaning and lorry sheeting facilities, and measures to clean the site entrances and the adjacent local road network;
- (e) a pollution prevention and control method statement, including arrangements for the storage of oil and fuel on the site;
- (f) soil storage and management;
- (g) sewage disposal and treatment;
- (h) temporary site illumination;
- (i) the construction of any temporary access into the site and the creation and maintenance of associated visibility splays;
- (j) details of watercourse crossings;
- (k) a species protection plan based on surveys for protected species (including birds) carried out no longer than 18 months prior to submission of the plan.

The development shall be decommissioned, site restored and aftercare thereafter undertaken in accordance with the approved plan, unless otherwise agreed in writing in advance with the Planning Authority.

Reason: *To ensure the decommissioning and removal of the development in an appropriate and environmentally acceptable manner and the restoration and aftercare of the site, in the interests of safety, amenity and environmental protection.*

15. Financial Guarantee to Cover all Decommissioning:

- (a) At least three months prior to the commencement of development, the applicant shall provide to the Planning Authority written details of the bond or other financial guarantee to cover the cost of all decommissioning, restoration and aftercare of the site as required by Conditions 13 and 14, for the written approval of the Planning Authority. These written details shall include evidence from a competent independent professional who has relevant experience in such matters that the guarantee is sufficient to meet the requirements of Conditions 13 and 14.
- (b) No work shall commence on site until the applicant has delivered the approved bond or other financial guarantee to the planning authority and the Planning Authority has provided written confirmation that the bond or other financial guarantee is satisfactory.

- (c) The wind turbine operator shall ensure that the approved bond or other financial guarantee is maintained throughout the duration of this consent and until the date of completion of all decommissioning, restoration and aftercare obligations as required by Conditions 13 and 14 of this consent.
- (d) The adequacy of the approved bond or other financial provision will be subject to five yearly reviews, from the commencement of development, to be paid for by the wind turbine operator and conducted by a competent independent professional with relevant experience. The findings of such reviews will be provided to the Planning Authority. Any revisions to the bond or other financial provision recommended by the review shall be made by the wind turbine operator as necessary within 28 days of that review and documentary evidence provided to the Planning Authority by the wind turbine operator to that effect.

Reason: *To ensure that there are sufficient funds available for the full costs of the site restoration.*

16. **Abnormal Loads Route:** No abnormal loads shall be transported on the Trunk Roads without prior approved from the Trunk Roads Authority, including prior approval of any accommodation measures required. Full details of proposed works shall be developed in consultation with the Trunk Road Operating Company and Transport Scotland Area Manager at the earliest opportunity through a Minute of Agreement (<https://www.transport.gov.scot/our-approach/industry-guidance/work-on-the-scottish-trunk-road-network>) and issued for their approval prior to the commencement of construction operations.

Reason: *To maintain safety for both the trunk road traffic and the traffic moving to and from the development; and to ensure that the transportation of abnormal loads will not have any detrimental effect on the trunk road network.*

17. **Abnormal Loads Signage:** Any additional signing or temporary traffic control measures deemed necessary due to the size or length of loads being delivered must be undertaken by a recognised Quality Assured traffic management consultant, to be approved by the Trunk Road Authority before delivery commences.

Reason: *To ensure that abnormal loads will not have any detrimental effect on the trunk road network.*

18. **Abnormal Loads Delivery Trial-run:** The developer shall submit proposals for an abnormal loads delivery trial-run to be undertaken with the involvement of Police Scotland and prior to the commencement of abnormal loads deliveries. Trial-run proposals shall be submitted to and approved in writing by the Planning Authority in consultation with the Trunk Road Authority.

Reason: *To ensure that the transportation of abnormal loads will not have any detrimental effect on the trunk road network.*

19. **Construction Traffic Management Plan:** No development shall commence until a Construction Traffic Management Plan (CTMP) has been prepared by the developer (in consultation with the Transport Development Team, the Trunk Road Authority, Transport Scotland, and Arnprior Community Council) and approved in writing by the Local Authority in consultation with the Trunk Road Authority, Transport Scotland. The CTMP will detail how traffic associated with the site will be managed including permitted delivery times, traffic control measures and any mitigation measures required to accommodate the passage of construction vehicles. In particular, the CTMP should consider the impact of construction traffic on the C36, B822, and Glinns Road, and any potential conflict with existing users, which includes pedestrians, cyclists, and vehicular traffic. The CTMP shall also highlight how the temporary access points, required to accommodate abnormal loads, will be managed.
- Reason: To minimise interference with the safety and free flow of the traffic on the trunk road, to ensure the safety of pedestrians and cyclists using the trunk road and adjacent facilities, and to be consistent with current guidance and best practice.*
20. **Sheeting of Vehicles:** All vehicles transporting construction material to and from the proposed development shall be sheeted.
- Reason: To ensure that material from the site is not deposited on the trunk road to the detriment of road safety.*
21. **Vehicle Wheel Cleansing Facilities:** The development shall not become operational until vehicle wheel cleansing facilities have been installed and brought into operation on the site, the design and siting of which shall be subject to the prior approval of the Planning Authority, after consultation with Transport Scotland as the Trunk Road Authority.
- Reason: To ensure that material from the site is not deposited on the trunk road to the detriment of road safety.*
22. **Decommissioning Plan:** Prior to any decommissioning of the temporary alterations to the rights of way and core paths that are affected by the proposals, a Decommissioning Plan shall be prepared and approved in writing by Stirling Council.
- Reason: To ensure that the Core Paths and Rights of Way, that are affected by the works, are returned to a standard similar to their condition prior to works commencing.*
23. **Private Water Supplies:** Where a private water supply pipework is being re-routed under the new proposed access track, any pipework/fittings to be used must be of a type approved for use with Private Water Supplies. Where water quality monitoring of the source will take place, before, during and after construction, target sampling must also be carried out at the end user point. Prior to any construction works, any mitigation measures for the temporary interruption of the Private Water Supplies shall be detailed and agreed with the Planning Authority.
- Reason: To ensure that those occupiers served by Private Water Supplies are not adversely affected by the proposed development.*

24. **Access Management Plan:** Prior to construction works commencing, a comprehensive Access Management Plan shall be submitted for the written approval of the planning authority, in consultation with the Transport Development Team. The Access Management Plan shall detail the requirements for any closures or diversions required, and shall include, but not be limited to:
- (a) **Methodology:** The plan should be prepared in line with the requirements set out in the Scottish Natural Heritage (now known as NatureScot) guidance document 'A Brief Guide to Preparing an Outdoor Access Plan' (2010)
 - (b) **Outdoor Access Baseline:** The plan should review current recreational use of the Rights of Way and Core Path, as well as considering general access rights to the area.
 - (c) **Review of Potential Impact on Access: Construction Phase.**
 - (d) **Review of Potential Impact on Access: Operation Phase.**
 - (e) **Mitigation Proposals on Core Path/Rights of Way Access and interactions with access users during both Construction and Operation:** The plan should provide signage proposals, interpretation boards and any other relevant information sharing methods.
 - (f) **Mitigation Proposals on General Access Rights and interactions with access users during both Construction and Operation:** The plan should provide signage proposals, interpretation boards and any other relevant information sharing methods.
 - (g) **Decommissioning and restoration:** Details on timeframe and restoration of the routes to their pre-construction condition.

Thereafter, the approved Access Management Plan shall be implemented in full, in accordance with the timeframes set out within the plan.

Reason: *To ensure that the impact of the development on access is kept to a minimum.*

25. **Detailed Route Assessment Plan:** Prior to construction works commencing, a detailed route assessment plan, which considers the movements associated with delivery of the turbine components, shall be undertaken. The findings of the Route Assessment Plan shall inform detailed engineers drawings for each highlighted pinch point, which shall be submitted for the written approval of the Planning Authority, in consultation with the Transport Development Team. Thereafter the agreed measures shall be implemented in full (the timescales of which shall be agreed with the Planning Authority).

Reason: *To maintain safety for both the road traffic and the traffic moving to and from the development.*

26. **A811 / C36 Road Junction:** Prior to construction works commencing, a detailed assessment of the existing A811/C36 road junction shall be undertaken. Any mitigation required as a result of the assessment shall be agreed with the planning Authority, in consultation with the Transport Development Team, and fully implemented prior to commencement of any on-site works.

Reason: To ensure that sufficient widths and visibility splays are available at the A811 / C36 road junction in the interests of maintaining road safety.

27. **Road Safety Audit:** Prior to construction works commencing, the proposed A811/C36 Road Junction and the temporary road access off the A811, that is to be provided for abnormal loads, shall be the subject of a Road Safety Audit, with any recommendations made being incorporated into the final design.

Reason: To maintain safety for both the road traffic and the traffic moving to and from the development.

28. **Road Condition Survey:** Prior to commencement of construction works, the developer will undertake a local road condition survey (C36, B822 and Glinns Road) in the presence of the Road Authority. The survey shall include an assessment of any structures along the route along with video evidence of the roads condition prior to commencement of any works. Deterioration of the local road network shall be monitored and the developer shall be responsible for all costs of repair work required as a result of development traffic.

Reason: To ensure that the road is kept in a suitable state of repair in the interests of road safety.

29. **Detailed Soil and Peat Management Plan (SPMP):** At least 3 months prior to construction commencing on site, a Detailed Soil and Peat Management Plan (SPMP) shall be submitted to the Planning Authority for their written agreement, in consultation with SEPA. The SPMP must include volume estimates for excavation and reuse of peat material separately from that of non-peat material. Peat and non-peat volumes shall be itemised on the basis of an agreed list of development areas to be specified in the SPMP (e.g. individual turbine foundations, access roads, borrow pit, construction compound). The SPMP must explain the purpose of the triangular bank profile to 4.5 metres width and 0.5 metre projection above the running track of the cut and fill track. If it is proposed to use peat for landscaping purposes then details of any proposed pre-treatment plus the locations and method applying to what volume of excavated peat, of which type (acrotelm etc.) must be provided.

Reason: To ensure minimisation and mitigation of peat disturbance and degradation.

30. **Habitat Management Plan (HMP):** Prior to the start of the approved development a final Habitat Management Plan shall be submitted to and approved in writing by the Planning Authority in consultation with SEPA and NatureScot.

Reason: In the interest of nature conservation and to safeguard protected species.

31. **Construction and Decommissioning Environmental Management Plan (CDEMP):** At least two months prior to the commencement of any works on the development site, a Construction and Decommissioning Environmental Management Plan (CDEMP), including a surface water management plan (SWMP), will be submitted to and approved in writing by the Planning Authority in consultation with SEPA. Thereafter the development shall only be carried out in accordance with the approved plan, subject to any variations approved in writing by the Planning Authority.

Reason: To control pollution of air, land and water in relation to the proposed development.

32. **Aviation Lighting Scheme:** Prior to commencing construction of any wind turbine generators, or deploying any construction equipment or temporal structures 50 metres or more in height (above ground level), the undertaker must submit an aviation lighting scheme for the approval to Stirling Council in conjunction with the Civil Aviation Authority and the Ministry of Defence defining how the development will be lit throughout its life. This should set out:

- a) details of any construction equipment and temporal structures with a total height of 50 metres or greater (above ground level) that will be deployed during the construction of wind turbine generators and details of any aviation warning lighting that they will be fitted with; and
- b) the locations and heights of all wind turbine generators and any anemometry mast featured in the development identifying those that will be fitted with aviation warning lighting identifying the position of the lights on the wind turbine generators; the type(s) of lights that will be fitted and the performance specification(s) of the lighting type(s) to be used.
- c) how the number of visible lights required, the amount of time lights need to operate and downward spill of lights has been reduced to a minimum. Set out a review (5 years from first commercial operation of the wind turbines) of aviation lighting to demonstrate that the latest lighting technology has been utilised to ensure that the minimum number of visible lights, the minimum amount of time lights need to operate and the minimum downward spill of lights has been installed.

Thereafter, the undertaker must exhibit such lights as detailed in the approved aviation lighting scheme. The lighting installed will remain operational for the lifetime of the development.

Reason: To maintain civil and military aviation safety.

33. **Aviation Charting and Safety Management:** The developer must notify the Ministry of Defence and the Planning Authority, at least 14 days prior to the commencement of the works, in writing, of the following information:

- (a) the date of the commencement of the erection of wind turbine generators;
- (b) the maximum height of any construction equipment to be used in the erection of the wind turbines;
- (c) the date any wind turbine generators are brought into use;

- (d) the latitude and longitude and maximum heights of each wind turbine generator, and any anemometer mast(s).

The Ministry of Defence must be notified of any changes to the information supplied in accordance with these requirements and of the completion of the construction of the development.

Reason: *To maintain aviation safety.*

34. **Programme of Archaeological Works:** No works shall take place within the development site until the developer has secured the implementation of a programme of archaeological works in accordance with a written scheme of investigation which has been submitted by the applicant, agreed by the Stirling Council Planning Officer (Archaeology), and approved by the Planning Authority. Thereafter the developer shall ensure that the programme of archaeological works is fully implemented and that all recording and recovery of archaeological resources within the development site is undertaken to the satisfaction of the Planning Authority in agreement with the Stirling Council Planning Officer (Archaeology). Such a programme of works could include some or all of the following: historical research, excavation, post-excavation assessment and analysis, publication in an appropriate academic journal and archiving.

Reason: *To safeguard and record the archaeological potential of the area.*

35. **Ecological Clerk of Works:** Prior to the commencement of development, a suitably qualified Ecological Clerk of Works (ECoW) will be appointed. The Ecological Clerk of Works shall be present on site during the construction (and decommissioning) period to monitor compliance with the Species Protection Plan and the Habitat Management Plan and undertake briefings with regards to any ecological/ornithological sensitivities on site.

Reason: *To ensure compliance with the Species Protection Plan and the Habitat Management Plan.*

36. **Greater Butterfly Orchids:** No work shall commence on the stretch of Easter Glinns Road between the Gribloch Farm track and the entrance to Wright Park until a pre-construction survey is carried out during June/July in any calendar year to identify the location of the orchids. A method statement detailing the findings of the survey, measures for avoidance and/or a detailed translocation method (including subsequent monitoring) shall be submitted to the Planning Authority and approved in writing; the approved translocation proposal shall be implemented in full prior to the start of work on the stretch of Easter Glinns Road that is to be upgraded.

No vehicles will traverse over land in the vicinity of the orchids or soil dumped/or anything stored within the vicinity of the approved location for the orchids.

Reason: *To preserve the Greater Butterfly Orchids in the interest of ecology.*

37. **Turbine Model/Maximum Warranted Sound Power Level:** The turbine model used must be submitted to, and approved by, the Planning Authority prior to the commencement of any development, and must have a maximum warranted sound power level of no more than 109.0 dB unless otherwise agreed in writing by the Planning Authority. The sound power levels must be clearly indicated, as well as a statement made on 'measurement uncertainty' and 'tonal correction' used in the calculations. Any data used relating to the turbines must be warranted by the manufacturer and the appropriate technical document attached with the final submissions.

Reason: To protect the amenity of residential properties in the locality.

38. **Wind Turbine Noise Level:** At wind speeds not exceeding 10ms⁻¹, as measured or calculated at a height of 10 metres above ground level; the wind turbine noise level at the facade of any dwelling or other noise sensitive premises shall not exceed 35 dB LA90, 10min, or the background noise level plus 5 dB(A), whichever is the greater for wind speeds standardised to a reference height of 10 metres up to a wind speed of 10 metres per second.

For the purposes of this condition:

- "wind turbine noise level" means the rated noise level due to the effect of the wind turbine, excluding existing background noise level but including any tonal penalty incurred under the methodology described in ETSU-R97 and a good practice guide to the application of ETSU-R-97 for the assessment and rating of wind turbine noise May 2013.
- "Background Noise Level" means the ambient noise level already present within the environment (in the absence of noise generated by the development) as measured and correlated with Wind Speeds.
- "Wind speeds" means wind speeds measured or calculated at a height of 10 metres above ground level at the site.
- "Noise Sensitive Premises" means premises, the occupants of which could be exposed to noise from the wind turbine.

Reason: To protect the amenity of residential properties in the locality.

39. **Noise Complaints Procedure:** Should the Council receive any complaints concerning noise levels, the operator shall fully investigate these complaints and, to establish noise levels at any affected property, shall, within two months (or any such other timescale as agreed by the Planning Authority) of any request from the Planning Authority, undertake noise monitoring and provide a report to the Planning Authority. The monitoring and reporting shall be carried out by a suitably qualified acoustic consultant previously agreed in writing by the Planning Authority. This shall be carried out by the method statement "Procedure to be followed in the event of a complaint" stated in section 2.0 on page 102 of the publication "The Assessment and Rating of Noise from Wind Farms" (ETSU-R-97, Department of Trade and Industry, September 1996).

Reason: To protect the amenity of residential properties in the locality.

40. **Noise Mitigation Measures:** Should any noise monitoring undertaken in accordance with Condition 39 above demonstrate that the noise threshold in Condition 38 is being exceeded, the operator shall, within three months of the breach being identified, submit a scheme of mitigating measures to the Planning Authority for its written agreement. The agreed mitigating measures shall be implemented within three months of this written agreement or within any alternative timescale agreed in writing by the Planning Authority, and thereafter retained throughout the life of the development unless otherwise agreed in writing by the Planning Authority.

Reason: To protect the amenity of residential properties or other noise sensitive premises in the locality.

41. **Construction Over the High Pressure Pipelines:** No development shall commence on site until design details have been submitted to the Planning Authority and approved in writing in consultation with Petroineos, for a reinforced protective slab, as part of the road construction over the high pressure pipelines local to Gribloch farm; the approved protective slab shall be installed as part of the road construction prior to any machinery or vehicular movements over the pipeline apparatus.

Reason: To protect the structural integrity of the existing high pressure pipeline.

42. **Previous Consented Developments:** Upon implementation of this proposal, the developer shall not implement any previous consents pertaining to wind turbines and related infrastructure on this site, namely the wind turbines permission granted at appeal (reference PPA-390-2039) and permissions granted for access (reference 17/00838/FUL and 13/00728/FUL).

Reason: To ensure that there is no potential for the implementation of both the extant permission and any new permission that may be granted since none of the assessments considered a combined scheme.

Advisory Note:

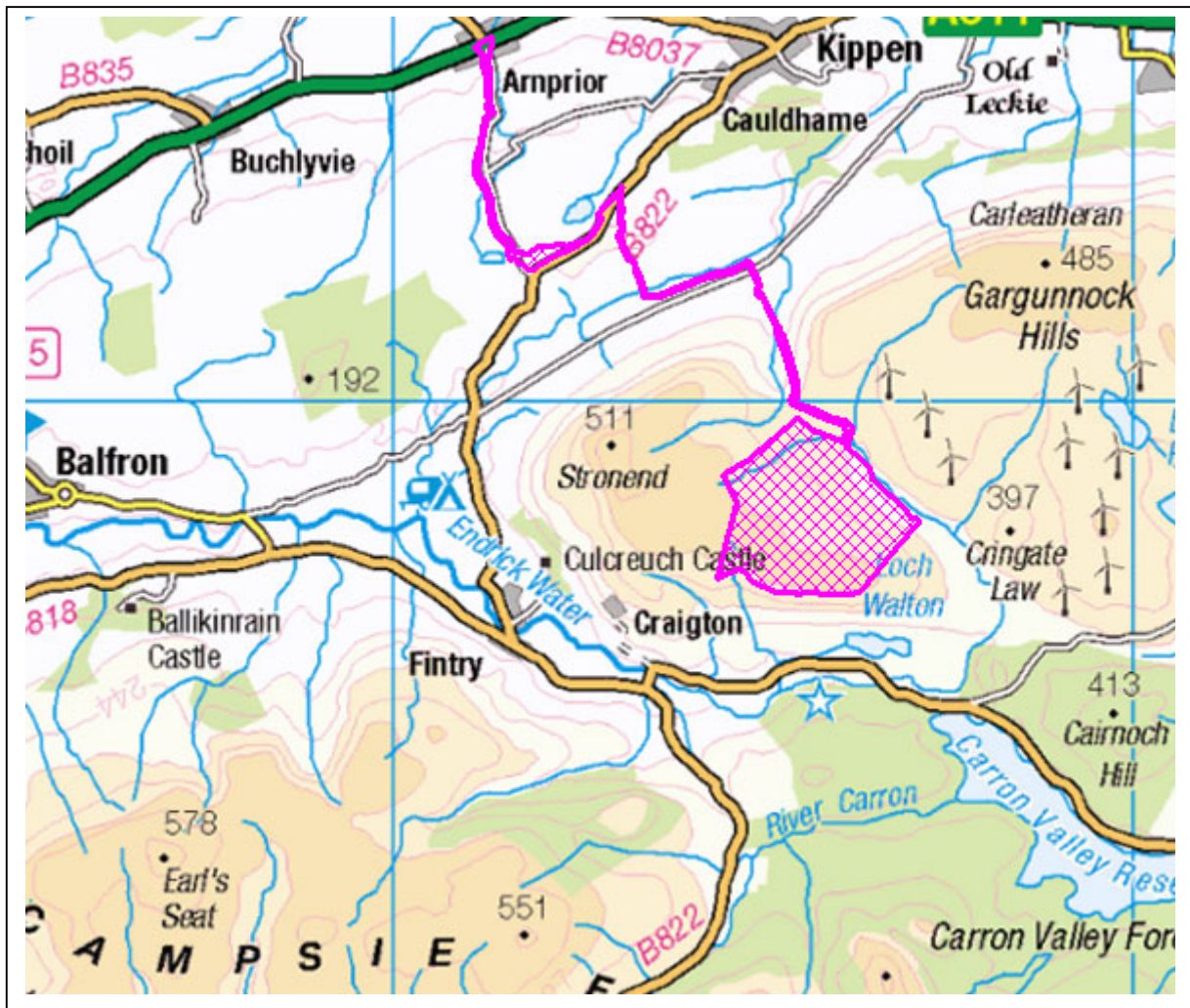
Road Improvements (Temporary Access Points and Passing Places): Any road improvements required to be undertaken within the Stirling Council area highlighted within the detailed Route Assessment Plan, or any subsequent submissions, shall be made via an application/s under Section 56 of the Roads (Scotland) Act 1984 for a Road Opening Permit for the construction of any improvement works to allow for the safe passage of large vehicles, HGVs or abnormal loads prior to the works commencing on site. All works shall be carried out in accordance with this Services requirements with the improvement works being completed prior to the commencement of any on-site works.

Legal Agreement Regarding Road Repairs: A Legal Agreement shall be in place between the developer and Stirling Council in order to recover any extraordinary expense incurred in repairing roads damaged by construction vehicles associated with the site as set out within the condition '**Road Condition Survey**', through the Roads (Scotland) Act 1984 Section 96(3) or 96(1).

Inspection Charging: Section 140(6) of the Roads (Scotland) Act 1984 entitles a Roads Authority to recover expenses reasonably incurred in inspecting work to which a Section 56 Permit relates. Section 56 Permits for the above development will therefore be subject to inspection fees to recover the actual costs of inspections carried out on site by Stirling Council staff.

Appendix 2

Location of Development



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