



REPORT BY PLACE DIRECTORATE

REGULATORY PANEL: 31 MARCH 2022

SUBJECT: CONSULTATIONS UNDER SECTION 37 OF THE ELECTRICITY ACT 1989

THREE APPLICATIONS UNDER S37 OF THE ELECTRICITY ACT 1989 (AS AMENDED) FOR PROPOSED 132kV WOOD POLE OVERHEAD LINE (OHL) TO CONNECT THE CONSENTED STRANOCH WINDFARM AND THE CONSENTED CHIRMORIE WINDFARM TO THE EXISTING SUBSTATION SITE AT MARK HILL, NORTH OF BARRHILL.

REFS: 21/01154/DEEM, 21/01137/DEEM AND 21/01164/DEEM

1. Purpose

South Ayrshire Council has been consulted by the Scottish Government, under Section 37 of the Electricity Act 1989, on three applications by Scottish Power Energy Networks (SP Energy Networks) to install an Overhead Line (OHL) which would connect the consented Stranoch Wind Farm and consented Chirmorie Wind Farm to the existing substation site at Mark Hill. The Council is not the determining authority for these proposals, and it should be noted that this report recommends consultation responses to the Scottish Government (more specifically the Energy Consents Unit - ECU). The Planning Service has delegated authority to respond to these consultations, but in this instance has chosen not to do so without first referring the matter to Regulatory Panel due to community interest to elements of the Overhead Line Proposals (OHL). The initial deadline for the Council's consultation responses to the ECU was the 15th February 2022; however, the Council requested additional time in order to take the recommendation to Regulatory Panel, with the ECU granting an extension until the 31st March 2022.

2. Recommendation

It is recommended that the Council:

- **Submits this report as its observations on the three proposed Section 37 applications and that no objections be raised to each of these.**
- **Approves delegated authority to conclude planning conditions with the Energy Consents Unit should the Scottish Government be minded to grant consent for the three Section 37 applications.**

3. Background

Scottish Power Energy Networks (SP Energy Networks) is proposing to construct and operate a new 16km, 132 kV wood pole overhead line (OHL) to connect the consented Stranoch Windfarm and the consented Chirmorie Windfarm to the existing substation site at Mark Hill, north of Barrhill in South Ayrshire.

It is important to note that as part of the earlier Environmental Impact Assessment (EIA) Screening Opinion Request for this OHL project, the proposals were presented to the ECU and South Ayrshire Council as one whole, single, and all-encompassing development and this included all of the distinct sections of the OHL set out in the proceeding sub-sections below. Notwithstanding this, the applicant has made the decision to sub-divide the project and submit three separate Section 37 applications to the ECU as it is their intention to deliver the overall OHL project on a phased basis. It is their view that by splitting the overall OHL project into three distinct sections covered through three separate Section 37 applications, this will assist them in delivering the phased programming as well as aid the ECU and all other stakeholders in their assessment of the proposal overall.

Whilst the three Section 37 applications cover different sections and stretches of the wider OHL project along its 16km route, it is also relevant to highlight that they are intrinsically linked and are fundamentally dependent upon one another in terms of delivering electricity connections between the wind farms to Mark Hill substation. Therefore, the information provided in support of each of the three Section 37 applications is consistent and essentially forms a consolidated and inclusive package of assessment which considers the OHL as one project overall (similar to that which was presented at EIA Screening Opinion stage).

4. Development Proposal

The development is required to facilitate the electricity connection of a 132kV OHL associated with Mark Hill to Chirmorie and Stranoch Windfarms respectively. The OHL will extend approximately 16km in length overground, with the final 100 metres on approach to Mark Hill to be installed underground. The underground cable section from pole 001 to Mark Hill substation is to be installed as permitted development under Part 13, Class 40 of the Town and Country Planning (General Permitted Development)1992, (Scotland) Order. Therefore, this underground section does not form part of the assessment contained within this Panel report.

The OHL Proposal subject to three Section 37 applications would begin at the consented Stranoch wind farm substation located in Dumfries and Galloway Council where it would run southeast to Maurs Cairn then turn northeast until Corly Craig. At northwest of Corly Craig, the proposed development then continues north-northeast across a few watercourses and a train line where it soon enters South Ayrshire Council boundary until it would reach pole 119 situated to the east of the consented Chirmorie wind farm. This section from where it enters South Ayrshire Council administrative boundary until pole 119 constitutes application 21/01154/DEEM.

The next section of the OHL starts at the consented Chirmorie Wind Farm substation and from there it runs slightly southeast then turns northeast into pole 119. This section is the shortest of the three and only extends 200 metres. This constitutes application 21/01137/DEEM.

The final section of the proposed OHL connects pole 119 to pole 001 which is less than 100m south of the existing Mark Hill substation. From pole 119, the proposed development travel northeast, after crossing Laggish Burn and follows a minor road through Arecleoch Forest. Approximately 500 metres after Arecleoch Forest, the proposed development turn northeast towards Barrhill. After crossing both the B7027 and A714 roads southeast of Barrhill, the proposed development travels north to follow a minor road into a strip of forestry. After the strip of forestry, the proposed development travels northwest until Mill Loch then turns north/ northeast into pole 001. This constitutes application 21/01164/DEEM.

Details of each of the three Section 37 applications consultations are provided below:

- SAC Planning Reference: 21/01154/DEEM
- ECU Planning Reference: ECU00003362
- ECU Project Name: Overhead line connection from Stranoch Wind Farm Substation to pole 119.
- Proposal: Consent for the installation of 5.9km of 132kV overhead line supported on wood poles between the Stranoch wind farm substation located approximately 11km northeast of Cairnryan (within Dumfries and Galloway Council boundary) and pole 119 located approximately 6km southwest of Barrhill, Girvan.

- SAC Planning Reference: 21/01137/DEEM
- ECU Planning Reference: ECU00003363
- ECU Project Name: Overhead line connection from Chirmorie wind farm substation to pole 119.
- Proposal: Consent for the installation of 200m of 132kV overhead line supported on wood poles between the Chirmorie wind farm substation, located approximately 6.2km southwest of Barrhill, Girvan and pole 119, located approximately 6km southwest of Barrhill, Girvan.

- SAC Planning Reference: 21/01164/DEEM
- ECU Planning Reference: ECU00003364
- ECU Project Name: Overhead line for Stranoch and Chirmorie shared connection from pole 119 to 001 (Mark Hill substation).
- Proposal: Consent for the installation of 11.25km of 132kV overhead line supported on wood poles between Pole 1, located approximately 4 km north of Barrhill, Girvan, and pole 119, located approximately 6km southwest of Barrhill, Girvan.

In total, 181 wood pole structures are to be erected and there are 2 forms of poles proposed, 'double' and 'four' pole tee-in arrangements. The 'four' pole tee arrangements are only used at isolated points to consolidate connect to the wind farm sites specifically. The individual poles are wooden and seasoned/treated with preservatives, they are dark brown in appearance, and this would weather to a silver/grey 5 years after installation. Each pole is topped with a galvanised steelwork cross-arms and insulators that will suspend and carry a single three-phase circuit (three metal alloy conductors) in a flat formation (i.e. all at the same height). The poles are typically 12.1 metres in height above the ground: however, this may increase depending on location (e.g. if it is crossing over water course). The minimum required height clearance for 132kV line is 6.7m over normal land and roads, excluding heavy use roads where 7.1m clearance is required. The spacing distance between the poles varies depending on the topography, altitude and land usage and in this case, distances will range from between 60m and 110m along the route. The lifespan and operational period of the OHL subject to the three Section 37 applications will be 40 years.

5. Applicant's Supporting Information

Environmental Appraisal: This document was requested by the ECU as part of the EIA Screening Opinion process. Whilst the ECU found the proposals not to constitute an EIA development, they considered that an Environmental Appraisal should still be provided to consolidate the consideration of potential impacts and mitigation required. The Environmental Appraisal provides an environmental evaluation of the proposals and includes the following chapters: Planning History, Principle of Development, Route Selection and Alternative Options, Landscape and Visual Impact, Cultural Heritage, Ecology and Ornithology, Hydrology and Hydrogeology, Forestry Impacts and Schedule of Mitigation. Following detailed assessment, the document concludes that there are no unacceptable environmental effects subject to certain forms of mitigation and that the development is essential necessary infrastructure to support consented windfarms. These topics are addressed within the assessment section of this report.

Figures: A series of figures, photomontages and wire-line diagrams of the OHL along the full 16km length have been provided as appendices to support the Landscape and Visual Impact assessment chapter of the Environmental Appraisal. These are included to evidence the likely impact the proposals will have on the landscape and on visual amenity from public viewpoints, including the local public road network and scattered residential properties to the east of the settlement of Barrhill.

Location Plans/Site Plans: This comprises of 12 plans of varying scale and detail which plot the route of the OHL from Stranoch windfarm in Dumfries and Galloway Council up to Mark Hill substation in South Ayrshire Council boundary.

EIA Screening Opinion Response Letter: This is a copy of the response issued by the ECU which confirms that the proposals are not considered to constitute an EIA development. The letter is included to evidence that the applicant has fulfilled the expected requirements of the ECU in the Environmental Appraisal supplied.

6. Planning History

Section 36 Consent and deemed planning permission was granted by the Scottish Government in July 2016 for the construction and operation of Stranoch Wind Farm in Dumfries and Galloway. The consented wind farm comprises up to 24 turbines and has a potential installed capacity of up to 72 MW. Section 36 Consent was also granted by the Scottish Government in July 2018 for the construction and operation of Chirmorie Wind Farm in South Ayrshire Council. This consent comprises 21 turbines and has a potential installed capacity of up to 80 MW. In addition to these wind farms, planning permission (21/00214/APPM) was also granted by South Ayrshire Council under delegated powers in June 2021 for the erection of a new substation platform extension, two new transformers, associated switching stations and a control building, perimeter footpath and palisade fencing, access track and drainage channel at Mark Hill substation.

As previously outlined, the proposals subject to the three Section 37 applications are for the installation of sections of OHL to support these consented wind farms by connecting them both to the transmission network at Mark Hill substation. As set out above, an EIA Screening Opinion under the Electricity Works Environmental Impact Assessment (Scotland) Regulations 2017 was issued by the Scottish Government in June 2019 for the overall OHL project. The ECU found that the proposed OHL subject to the three Section 37 applications is not an EIA development.

7. Consultations

Environmental Health: No objections.

8. Development Plan

Section 25 of the Town and Country Planning (Scotland) Act 1997(as amended) requires that decisions on proposals for development are made in accordance with the development plan unless material considerations indicate otherwise. The primary policy consideration is LDP Policy: Renewable Energy. However, the policies listed below are also of relevance and are taken into consideration in the assessment set out in Section 9.

- LDP Policy: Spatial Strategy
- LDP Policy: Sustainable Development
- LDP Policy: Landscape Quality
- LDP Policy: Landscape Protection
- LDP Policy: Water Environment
- LDP Policy: Air, Noise & Light Pollution
- LDP Policy: Renewable Energy
- LDP Policy: Natural Heritage
- LDP Policy: Land Use and Transport
- LDP Policy: Outdoor Public Access & Core Paths

The proposal is considered to be consistent with the relevant policies of the Local Development Plan 1 (LDP1).

The Scottish Government Department of Planning and Environmental Appeals Division (DPEA) concluded its Examination of the South Ayrshire Modified Proposed Local Development Plan 2 (MPLDP 2 but referred to as LDP2) and issued its Examination Report on 10th January 2022. At a special meeting of the Council on 10 March 2022, Members accepted the modified LDP2 and approved it for submission to Scottish Ministers as the Council's intended adopted Local Development Plan. LDP2 now forms a substantial material consideration in the determination of planning applications.

With respect to the proposed development, policies contained within LDP2 are not at significant variance with those of the adopted LDP1.

9. Assessment

Principle and Need

Scottish Power Transmission Plc (SPT) is the transmission license holder in southwest Scotland and has a duty under Section 9 of the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical system of electricity transmission and to facilitate competition for generation and supply of electricity. SPT is responsible for the delivery of the transmission network on behalf of SP Energy Networks and the company also has obligations to offer non-discriminatory terms for connection to the transmission system, both for new generation and for new sources of electricity demand. SP Energy Networks is also responsible for developing the transmission system and connecting new demand and generation to the grid network in accordance with the GB Security and Quality of Supply Standards.

In this case, SP Energy Networks received a grid connection request from National Grid Electricity Transmission (NGET) to connect the consented Stranoch Wind Farm. SP Energy Networks also received a grid connection request from NGET to connect the proposed Chirmorie wind farm soon after. In response to this, SP Energy Networks have advised that they are obliged to provide a connection for wind farms which lies within the area covered by their license.

As part of the Environmental Appraisal, consideration of the 'Do Nothing' scenario has been included and this is standard part of the assessment which essentially sets out a hypothetical alternative that provides a context for understanding the implications of not fulfilling the proposed connections. The assessment as part of the 'Do Nothing' scenario sets out that nearby existing Arecleoch and Kilgallioch wind farm grid connections were confirmed as not having sufficient capacity to allow the Stranoch wind farm connection to be connected to either (the Arecleoch wind farm connection is already consolidated with the Glen App wind farm connection). A direct connection into the existing 275 kV steel tower line somewhere other than Mark Hill substation was also discounted at the engineering design stage due to the necessity for a new substation and the comparative cost of this. Therefore, it was determined that Stranoch Wind Farm would require its own separate connection to the transmission grid network and that there were opportunities to pair this with the simultaneous request in terms of the connection for Chirmorie Wind Farm.

Given the lack of alternatives and options, it is concluded in the assessment that the 'Doing Nothing' scenario would lead to a breach of SPT licence obligations, in failing to provide connection options to generators and leaving the network vulnerable to unreliability. Therefore, in response to the requests received and in order to fulfil statutory requirements, SP Energy Networks are proposing to provide a new consolidated, co-ordinated, economical system of electricity grid connection solution (through these three Section 37 applications) for the consented Chirmorie Wind Farm in parallel with the consented Stranoch Wind Farm in order to deliver efficiency and minimise the need for a series of new transmission infrastructure.

The basis and principle for delivering the OHL subject to these three Section 37 applications is noted and the need for a new OHL to be delivered in this instance is considered to be justified based on the summary of information above.

Route Selection and Alternative Route Options

The Environmental Appraisal includes a specific chapter dedicated to evidencing the rationale for the route and alignment of the overall OHL as proposed through the three Section 37 applications. Whilst a number of indicative options were initially considered, due to a mixture of environmental, technical and economic reasons it is understood that the appraisal was further refined down to 3 route options which were deemed to be realistically feasible and achievable (this included the route selected and proposed through these 3 Section 37 applications).

As previously set out, SP Energy Networks is obliged under Section 9 of the Electricity Act 1989 'to develop and maintain an efficient, co-ordinated and economical system of electricity transmission and to facilitate competition in the supply and generation of electricity'. In addition, SP Energy Networks has a duty under Schedule 9 of the Electricity Act 1989 to take account of 'the desirability of preserving natural beauty, of conserving flora, fauna, geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic interest and sites and structures of archaeological interest'. As part of the Act, SP Energy Networks are required to consider environmental, technical and economic matters, and reach a balance between them including being able to evidence that they have taken reasonable steps to mitigate the effects of its proposals. This means that a proposed route requires to be the one, selected after an appraisal of a number of route options, which balances technical feasibility and economic viability with the least disturbance and minimising impact and interactions with sensitive environments, cultural assets, and communities.

It is clear from review of the assessment that the route as proposed and subject to these three Section 37 applications is the most appropriate option of the three optional routes considered. Whilst the chosen route does travel through the edge of the settlement on Barrhill on the eastern side, it is apparent from review of the other two options that this would essentially be unavoidable with both of these routes also required to intersect by Barrhill albeit on the western side of the village. The differentiator in this case however is that the other two options in both instances are longer than the route selected, with one of the options requiring significant tree felling of the Arecleoch forest to accommodate the proposed OHL. Alongside the economic and forestry issues, the other two options were also demonstrated to have greater visual amenity and landscape impacts, were found to be closer to ecology designations (including the Glen App and Galloway Moors Special Protection Area) and also had greater risk of affecting cultural heritage features in the southern part of the study area.

Given the above, it is considered that it has been sufficiently evidenced that the route as proposed through these three Section 37 applications is the most appropriate in this instance. OHL travelling in close proximity to Barrhill appears to be an inevitable consequence for delivering the development given the locations of the consented windfarms to the south. Therefore, the route selected and proposed through these three Section 37 applications has been decided on the strength of other factors including minimising economic, environmental, and cultural impacts.

Landscape and Visual Impact

The OHL when considered collectively as one overall project will extend approximately 16km (9.5 miles) and as a result of this, it is inevitable that during its route, there will be sections which are more visible and notable than others.

For the section subject to the first application 21/01154/DEEM (e.g. the section of OHL which will look to initiate the connection for Stranoch Wind Farm), it will travel for the most part through remote and undesignated landscape once it enters South Ayrshire Council boundary. Weight is given to the fact that for the majority of its route in these areas, the OHL would run parallel to the minor road network where a number of existing lines and similar vertical pole and associated wind farm structures are already in situ. The presence of existing features combined with the relatively modest and slim line silhouette design and appearance of the poles themselves (which are spaced approximately 100 metres apart) confirms that the reach of the visual impact of the OHL for these sections would be localised and not significant or harmful on the surrounding environment.

The second section, application 21/01137/DEEM (e.g., the section of OHL which will look to facilitate the connection point for Chirmorie Wind Farm), only extends 200 metres in length. It runs from Chirmorie Wind Farm substation to a specific pole which the initial line for Stranoch Wind Farm will also connect to. Given the location, length and orientation of this section of OHL, it will be self-contained and the visual impact of this part of the OHL is not considered to be significant or harmful in any way.

The final section, application 21/01164/DEEM is the longest of the three with it running approximately 11.25km in length and navigating a variety of landscapes, environments and constraints. It is acknowledged that as part of this section of the proposed OHL, it has the potential to be more visually noticeable in particular areas as it approaches and travels to the east of the settlement of Barrhill towards Mark Hill substation. However, noting the design and appearance of the OHL it is not considered that the visual impacts in these locations would either be significant or adverse based on the findings and evidence of the comprehensive Landscape and Visual Impact assessment provided as part of the Environmental Appraisal. It is also worth noting that for the remaining parts of this final section of the overall OHL, both before and beyond the area near Barrhill it will not be visually intrusive or impactful from any notable or sensitive viewpoints. This is particularly relevant for the area beyond the immediate east of Barrhill as the OHL travels north to Mark Hill with the photomontages and supporting information demonstrating that the OHL will not actually be seen due to a combination of topography and landscape features.

Consideration of Undergrounding

As previously outlined, the lines subject to these three Section 37 applications are to be delivered overground with the exception of the last 100m stretch on approach to Mark Hill substation which is to be undergrounded and undertaken separately as Permitted Development. Whilst this short section of cabling does not form part of the three Section 37 applications being considered, the reasons for undergrounding a 100m section after the end of the OHL have been clarified and it is considered relevant to note these in order to be able to both understand and differentiate the approach taken here from the remaining sections of OHL which do merit consideration through the applications submitted. In short, this 100m section is to be undergrounded for a number of technical reasons and this includes the following:

- Clearance between the existing forest road and the proposed OHL - The forest road is the main access for maintenance to Mark Hill Sub Station and the Scottish Power Renewables control building and there is a need to be able to have any kind of vehicular access there without height restriction. An OHL in this location would compromise this.
- Difference in level from the field south of the forest road to the substation which is lower and can be better managed with a underground cable entry.
- Steep bending - The existing and proposed circuit coming from the south are bending 90 degrees to the east and again another 90 degrees into the substation. This could not be achieved with an OHL due to clearances between phases within the same circuits.
- Clearances between multiple circuits going into Mark Hill – Underground cables can run in parallel/close proximity to one another whereas OHL need a minimum clearance. As there is multiple OHL entry bays into Mark Hill next to another at present, the 100m section could not be achieved without significantly extending the route to come in from a different direction.

Beyond the assessment and justification provided in the Environmental Appraisal for overgrounding the lines subject to the three Section 37 applications, the Planning Service has sought additional information from the agent to justify the decision to deliver the OHL overground as opposed to underground, particularly around the area to the east of the village of Barrhill. The agent (Scottish Power Energy Networks - SPEN) in response has provided further bespoke supporting information and assessments to evidence the approach taken and this comprises of a variety of economic, technical and environmental factors in favour for overgrounding this section. As part of this, the agent has also set out the implications, risks and impacts of undergrounding the lines as cables.

Firstly, in terms of economic factors, SPEN advise that they have a licence obligation and duty to deliver the most economic and efficient solution within the constraints of industry standards, statutory consents, approvals and permissions. As part of this, OFGEM (the Office of the Gas and Electricity Markets) who they represent has to approve investment decisions within the transmission system and its role is to protect the electricity consumer from unnecessary or unjustified costs. Ultimately, the financial burden of constructing and operating the new shared section of transmission line will be placed on electricity consumers throughout Great Britain.

As any infrastructure costs will have a direct impact into the British electricity bill payer (who essentially fund these projects) this means an overhead line will almost always be promoted ahead of an underground cable connection due to the higher costs of underground cabling for the relative voltages. On this point, SPEN advise that underground cables are typically 2-5 times more expensive than the equivalent length of overhead line and as part of this they have included comparable examples to demonstrate cost ratio between overhead and underground lines for similar infrastructure projects.

The example provided indicates that for a section of overhead line over a 2.3km stretch it would on average cost approximately £4.5 million overground. If this same section is to be routed underground the cost rises on average to approximately £17.5 million.

From an environmental perspective, the information presented explains that undergrounding cabling generally represents a more intrusive approach than overgrounding with more predicted impactful consequences due to the construction methods required. In this case, given the level of voltage proposed, trenches 10 metres in width and a minimum of 1.5 metres in depth would need to be formed to bury the cabling around these areas. The 10-metre operational corridor needs to remain as sterilised land and nothing can be planted, built or laid in these areas to ensure constant and unhindered access to the cables should this be required. The extent of the engineering and drilling activity involved brings with it a number of environmental risks and disturbance with further knock-on risks for ecology and cultural heritage that would require further consideration and mitigation. Potential environmental impacts that come from undergrounding include effects on groundwater during construction and operation and impacts on soil and geology due to displacement during excavation and reinstatement and disturbance of buried archaeology and potential wildlife habitats.

In addition to this, once installed, any future maintenance and addressing of faults for sections of underground cabling would also require further intrusive activity and excavation to expose and fix the issues could again lead to further impacts environmentally. Conversely, for overgrounding poles and lines these can ordinarily be fixed, altered, and replaced with little to no further impacts on the ground or environment itself.

Finally, with regards to some relevant technical considerations, the agent has advised as the section to the east of Barrhill will require the OHL to navigate across and around road networks, watercourses and in between isolated residential properties, the level of disruption to deliver underground cables in these areas would generally be far more significant. As the construction process involved with undergrounding is generally more intrusive (including the excavation and drilling activities), the construction period is typically longer and more intensive, it requires heavier machinery and a number of additional processes including those to accommodate the storage of soil and material removed and for surface re-instatement.

As a result of the extent of ground intrusion, undergrounding also increases the potential risks for affecting existing utilities including private water supply catchment, abstraction and supply point in terms of contamination or cutting water supply all together. Where overground lines would have a localised impact given the scale of footings required for the wood poles at point of insert, the risks for undergrounding due to the width and depth of excavation involved is greater and therefore the risks increase. It is for this very reason that the Council's Environmental Health Service have advised in their consultation response that they would not advocate for undergrounding the cable lines through these locations. Further technical consideration of the impact of both private and public water supplies from the current overground proposals is considered in more detail in the hydrology sub-section below.

In summary, it is not considered appropriate or justified in this case to request undergrounding for the sections of OHL which pass through Barrhill given the combination of reasons set out above.

Cultural and Built Heritage

The assessment on cultural and built heritage is consolidated as a bespoke chapter within the Environmental Appraisal. As part of this, a desk-based assessment and a walkover field survey have been carried out for the development subject to the three Section 37 applications and this includes consideration of all heritage and potential archaeological features present in both an Inner Study Area (approximately 200m from the centre line of the OHL on either side) and an Outer Study Area (approximately 2km from the centre line of the OHL on either side). Forty-eight cultural heritage assets have been identified within the Inner Study Area and potential direct impacts have been predicted on 15 of these arising from the construction of the proposed development. Fifty heritage assets in the Outer Study Area were identified and predicted to have visibility of one or more elements of the proposed development.

Following detailed review and consideration, the assessment concludes that subject to appropriate mitigation where required, none of the sections of OHL subject to the three Section 37 applications will have a significant direct impact upon archaeological and heritage features throughout the study area. To avoid any potential direct impacts, standard mitigation is proposed during construction stage for the OHL, and this includes but is not exclusive to, delineating and marking off heritage features (cairns, water tanks etc) as buffer zones, the use temporary track mats and limitations on certain forms of machinery for particular sections of the OHL installation. In terms of in-direct impacts including impact on setting of heritage features, twenty-one assets were assessed across the three sections of OHL as being potentially receptive to the OHL, and this included a mixture of scheduled monuments and sensitive designated sites. In each case, due to the alignment and design of the OHL combined with secondary factors like distance and intersecting land, the impact on the settings of these heritage designations were considered to either be of low or negligible magnitude and no mitigation (including realignment of any section of the OHL) was deemed necessary.

Noting the assessment above, it is considered that any potential impacts from the OHL subject to the three Section 37 applications upon both cultural and built heritage at both construction and operation stage would not be significant and the mitigation proposed will offset potential effects where they have been identified.

Ecology and Forestry Impact

A desk-based study and a field survey comprising of a of an Extended Phase 1 Habitat Survey have been undertaken to inform the assessment of ecological impacts as part of the Environmental Appraisal. For desk-based studies, the ecological study area had a reach of approximately 2km around the centre of the OHL with the ornithological study area extended to approximately 10km. For field studies, the study area was set at 250m either side of the OHL.

The appraisal of the proposed development has identified potential impacts on habitats (particularly woodland, blanket bog and wet modified bog) including those for the red squirrel, otter, bat species and breeding birds. The relevance and the potential level of impact varies across the three Section 37 applications as it travels along the 16km route. Given the nature of the construction of the OHL, the assessment acknowledges that there will be some residual adverse effects on ecological habitats; however, these will mostly only be for a short to medium term whilst habitats re-establish following construction of the development. No significant, long-term residential effects are predicated in this regard.

Mitigation proposed to ensure any such predicated impact is not significant or long-term includes the avoidance of sensitive habitats all together, habitat reinstatement, woodland offset planting, a Construction Environmental Management Plan (CEMP) and the involvement of a suitably qualified Ecological Clerk of Works (ECoW) to monitor and oversee the works and to ensure the mitigation is in place.

The Environmental Appraisal identifies that, of the 16km overall connection length of the OHL subject to the three Section 37 applications, approximately 4km will pass through areas forestry land with the final of the three Section 37 applications (21/01164/DEEM) travelling through Arecleoch forest and anticipating of having the most notable impact in this regard. Collectively, the OHL at construction stage would impact upon 21.41 hectares of forestry in varying degrees and this is partly due to the need to deliver a 60m wide resilience corridor for the development on either side of the line route and alignment. The areas of forestry impacted would comprise of the following as broken down:

- 7.95 hectares of existing trees which would be selectively felled (including 5.52ha of conifer forest and 2.43ha of broadleaf forest).
- 4.77 hectares of broadleaf scatter woodland which would be retained and managed to avoid felling (achieved through long-term pruning and crown reduction).
- 6.04 hectares of land awaiting re-planting (this is recently felled forest where it is anticipated the landowner would replant these in the short term).
- 2.65 hectares of long-term open ground where it is anticipated the landowner would not replant.

The forestry assessment chapter of the Environmental Appraisal undertaken predicts longer term impacts for existing woodland and forestry noting the felling requirements at construction stage however it considers these impacts would not be significantly consequential due to the mitigation proposed. To fully address the long-term loss of forest resource, the Environmental Appraisal recognises a requirement to address the felling of the existing 7.95 ha of trees and also the 6.04 ha of land awaiting replanting, as trees could not be re-planted in these areas following construction of the connection, a total of 13.99 ha. In response to these findings, the Environmental Appraisal sets out a commitment to developing both a felling strategy and compensatory re-planting schedule both of which are to be agreed with the ECU and relevant forestry enterprises. This would be undertaken in line with relevant planning policy to ensure there is no overall net loss of woodland and it considers that once the new offset woodland areas have either been established or areas of felled woodland have been re-established, any longer-term impacts experienced will be addressed.

At the operational stage of the OHL project, the Environmental Appraisal anticipates a requirement to potentially amend existing 'Forest Management Plans' detailing current objectives, plans and techniques for felling and restructuring the forest within adjoining, retained forest areas to ensure the OHL is not compromised or impacted. The Applicant states that in such situations they would work with the various landowners where the proposed development would impact upon their future operational management of the forest and at this point, further mitigation work would be undertaken in consultation with the landowners to address all potential operational impacts. The Environmental Appraisal concludes that these discussions would be undertaken along with financial compensation arrangements to address the loss of forestry.

Given all the above, it is considered that any potential impacts from the OHL subject to the three Section 37 applications upon both ecology and forestry at both construction and operation stage would not be significant and/or permanent due to the suite of mitigation proposed.

Hydrology and Hydrogeology

Chapter 8 of the Environmental Appraisal considers the potential effects of the proposed development on hydrology and hydrogeology. The specific objectives as set out describe the geological, hydrogeological, and hydrological baseline and then consider the potential effects, including direct, indirect, and cumulative effects of the proposed development on hydrology and hydrogeology. Measures are identified, where appropriate, to mitigate effects.

The study area for consideration of potential direct effects on the water environment associated with the construction phase of the proposed development equates to all watercourses within a 1 km radius. A desk study and a field study have been undertaken to inform this assessment.

Potential impacts of the OHL are identified and these largely relate to the construction process for the OHL subject to the three Section 37 applications. Examples of this include the potential for soil erosion along the proposed alignment, siltation or pollution of watercourses during excavation and installation of wood poles, spills or contamination from materials/wastes and modification of groundwater flows by location of wood poles and/or by excavation. Mitigation to offset any potential impacts is relatively standard practice and includes implementation of the CEMP, a detailed drainage design and silt management scheme, removal of temporary construction roads and stone tracks following completion of construction and storage of excavated materials.

With regards to potential impact of the OHL on private and public water supplies, this is considered in its own sub-section of the Environmental Appraisal. The review sets out that the closest private water supplies within a 2.5km radius relate to those which serve two properties at Altercannoch (possible source identified as Loch Alty 1.4km southeast of the proposed alignment), two properties at Ferngate (possible source identified as Cross Water of Luce at approximately 400m west of the proposed alignment) and one property at Chirmorie (four possible sources varying between 460m to 715m east of the proposed alignment). As all private water supplies sources identified are outwith a 250m buffer of the proposed alignment, and private water supply locations are shown not to be in hydrological connection to the proposed alignment and indicative access routes, the assessment establishes that no further appraisal of potential impacts to PWS is required as there is no potential for the proposed alignment to affect water quality at these locations. In terms of Public Water Supplies, it is set out that there is no drinking water protected areas as classified by SEPA within 1km of the proposed or in downstream hydrological connectivity and as such no further assessment on this is subject area either.

The Council's Environmental Health Service have reviewed this assessment and as part of this have undertaken a site walkover with the agents to confirm that the reach buffer zone and the identified potential receptors for the PWS is sufficient. Their consultation response provided confirm that they have no objections to the three Section 37 applications subject to 'Site Specific Risk Assessments' being undertaken for PWS's they have identified. It has been advised that would be addressed between the Agent and the Council's Environmental Health Service as Regulator.

Beyond the position given, to assist and inform considerations, Environmental Health have also made a number of observations in terms of separate legislative requirements and frameworks which the Applicant would require to adhere to and comply with when finalising the proposed alignment and also delivering the project on the ground. It is intended that a copy of their consultation responses would be issued to the ECU alongside the Council's overall consultation responses should Members be minded to agree with the recommendations as set out in this report.

In summary, subject to a suite of relatively standard mitigation at the construction stage and the separate Environmental Health requirements being addressed, it is not considered that there will be any significant or adverse impacts from the OHL subject to the three Section 37 applications in terms of hydrological or hydrogeological matters.

Schedule of Mitigation

As set out in a number of the sub-sections above, mitigation has been proposed in response to each of the topic areas where some form of environmental impacts and effects is either considered to be likely or a potential consequence that needs to be off-set. This is consolidated in Chapter 10 of the Environmental Appraisal; Summary and Schedule of Mitigation' which tables the mitigation proposed at pre-construction, construction and operation stage as it applies to each of the topic areas assessed.

Having reviewed the suite of mitigation proposed in relation to the OHL subject to these three Section 37 applications, it is in the broadest terms considered to be both acceptable and proportionate. Any further requirements in terms of the securing this mitigation or seeking additional mitigation would be agreed with the ECU as part of the consideration of these Section 37 applications.

10. Other Material Considerations

Scottish Planning Policy (SPP) is generally supportive of supporting infrastructure related to wind energy development where the development can operate efficiently, and environmental and cumulative impacts can satisfactorily be addressed but this is qualified by the need to ensure the environmental impacts are satisfactory. It suggests criteria for the consideration of proposals which are similar in content to those of the South Ayrshire Local Development Plan. The SPP seeks to ensure that in taking decisions on development proposals, Planning Authorities should ensure that potential effects, including cumulative effects of incremental development are considered. The proposal to develop and deliver OHLs to support consenting windfarm developments does not raise any significant additional environmental impact concerns and sufficient mitigation is proposed where impacts could arise or last. As a result, the proposals subject to the three Section 37 applications are accordingly considered to be consistent and compliant with SPP.

11. Conclusion

In conclusion, having considered the proposals including the supporting documentation, together with the additional assessments and material provided, and having balanced the need, merits and purpose of the proposals, it is considered that the OHL project subject to the three Section 37 applications are acceptable.

12. Recommendation

It is recommended that South Ayrshire Council as a consultee submits no objections to the Scottish Government (e.g. the Energy Consents Unit) for all three Section 37 applications subject to the OHL development and project. Notwithstanding this, as these consultations from the Scottish Government have been submitted as three distinct and separate Section 37 applications, three Council recommendations would require to be issued for each individually and these would be in line with the below:

- 21/01154/DEEM - Recommendation of no objections to the Scottish Government
- 21/01137/DEEM - Recommendation of no objections to the Scottish Government
- 21/01164/DEEM - Recommendation of no objections to the Scottish Government

Advisory Note

South Ayrshire Council Environmental Health Service will require the Developer to undertake 'Site Specific Risk Assessments' for all of the Private Water Supplies (PWS) (including their catchments, supplies, and the mitigations to be undertaken/not undertaken including why) identified as part of the Environmental Appraisal. This shall be carried out in conjunction with Environmental Health as Regulator for the PWS in South Ayrshire Council. The relevant officer, Constance Lobban (Enforcement Officer, Environmental Health) can be contacted on constance.lobban@south-ayrshire.gov.uk to progress this requirement.

Background Papers

Application Letters, Plans & Supporting Information
Scottish Planning Policy (SPP)
Adopted South Ayrshire Local Development Plan 1
Modified Proposed Local Development Plan 2

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Date: 31/03/22 (31st March 2022)