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3. DESCRIPTION OF THE PROPOSED DEVELOPMENT

3.1 Introduction

3.1.1 This Chapter describes the elements that constitute the Proposed Development. It provides a description of the key components and information regarding the construction, operation and maintenance of the Proposed Development.

3.2 The Proposed Development

3.2.1 The Proposed Development is to install and keep installed a new single circuit 132 kV double trident H wood pole overhead line (OHL) between the consented Creag Riabhach Wind Farm and the proposed Dalchork substation north of Lairg, as illustrated on **Figure 3.1**: The Proposed Development.

3.2.2 Section 37 consent is being sought for approximately 22 km of 132 kV OHL, to be supported by double trident H wood poles of a nominal height range of approximately 10 – 15 m between the consented on-site substation at Creag Riabhach Wind Farm (Ordnance Survey (OS) Grid Reference 253060, 927377) and the consented Dalchork substation (OS Grid Reference 25823, 909564). **Appendix 3.1** includes information on the indicative pole locations and heights for the OHL.

3.2.3 Ancillary development required to facilitate the construction and operation of the Proposed Development would include tree felling and vegetation clearance, construction of approximately 1.4 km of 132 kV underground cables by the Crask, new access bellmouths (temporary and permanent), construction of a small number of permanent access tracks, and temporary measures to protect road and water crossings. Deemed planning permission would be sought for these under Section 57 of the Town and Country Planning (Scotland) Act 1997, as amended. These are discussed in more detail later in this Chapter.

3.2.4 In addition to those elements requiring Section 37 consent and deemed planning permission, approximately 400 m of existing 11 kV single wood pole OHL would be undergrounded, and these works would be undertaken under the Applicant's Permitted Development rights as a Statutory Undertaker[1], and as such are not discussed further within this report. It is highlighted that these works are distinct from the those relating to the 132 kV underground cables by the Crask, which are considered through this EIA Report.

3.2.5 For the purposes of this EIA Report, the Proposed Development therefore comprises those elements requiring Section 37 consent and deemed planning permission: the proposed OHL and ancillary development.

3.2.6 A temporary construction compound and laydown areas would also be required to facilitate the Proposed Development. Permission for these would be sought separately by the Principal Contractor, as discussed later in this Chapter.

3.2.7 The Creag Riabhach Wind Farm and on-site substation and the Dalchork substation form part of the baseline to the assessment of the OHL, where appropriate.

3.3 Limits of Deviation

3.3.1 A Limit of Deviation (LOD) defines the maximum extent within which a development can be built.

3.3.2 The locations of the pole positions, 132 kV underground cable and new access tracks, as shown on **Figure 3.1**: The Proposed Development, have been determined on the basis of environmental and technical considerations, including engineering analysis of ground conditions and suitability based on desk studies and site walkovers. Investigation of sub-surface and geotechnical conditions has been undertaken; however, further

[1] The Town and Country Planning (General Permitted Development) (Scotland) Order 1992 (Class 40)

assessment is required for the final design. It is possible therefore that individual pole locations, 132 kV underground cable or access tracks might alter following further geotechnical investigation (referred to as micrositing). There may also be a need to adjust the alignment and / or pole locations, 132 kV underground cable and access tracks to avoid any unexpected environmental sensitivities, such as protected species or unidentified cultural heritage features, for example. To strike a balance between providing certainty between the location of the Proposed Development and any environmental impacts, and the need for some flexibility, a horizontal LOD has been defined within which the Proposed Development would be constructed. No element of the Propose Development for which Section 37 consent is sought would be located outside the LOD described.

3.3.3 Consideration was given to the following general principles in defining the LOD for the Proposed Development:

- using the optimum LOD whilst providing flexibility for micro-siting during the detailed design phase to avoid poor ground conditions, such as deep peat, as far as reasonably possible;
- avoiding sensitive environmental features, such as ecology and / or cultural heritage;
- avoiding felling of windfirm edges of standing forestry blocks;
- avoiding watercourses and steep slopes; and
- avoiding residential properties.

3.3.4 The LOD is illustrated on **Figure 3.1**: The Proposed Development. The horizontal LOD parameter specified allows poles or the 132 kV underground cable to be relocated up to 100 m either side of the proposed alignment, and new access tracks to be located up to 20 m either side of their indicated locations. This is reduced in some locations where existing environmental constraints are known and the movement of the OHL into these areas would be considered to lead to a greater level of effect. These reductions are detailed within the relevant technical chapters of this EIA Report.

3.3.5 The vertical LOD for the OHL will be 18 m above ground level as this is the maximum height of this type of structure. Heights of poles would be increased up to this limit in areas where soft or otherwise difficult ground conditions are present which would require greater span lengths and thus taller poles to ensure minimum ground clearances for conductors are observed.

3.4 OHL Design

3.4.1 The Proposed Development would track generally south-east from the Creag Riabhach on-site substation and cross the Allt a' Chràisg and A836 just south of the Vagastie Bridge before following the line of the A836 public road towards the Crask Inn. Approximately 0.5 km north of the Crask Inn, on the east side of the A836, the OHL would terminate at a sealing end structure and transfer to an underground cable. The cable would pass to the west side of the A836, beneath the road, and approximately follow its route, passing also beneath the River Tirry. The cable would angle to the east just before meeting the north border of Dalchork Forest, passing beneath the A836 again and follow the border for approximately 420 m. The cable would then angle into Dalchork Forest, immediately adjoining a sealing end structure and reverting to OHL.

3.4.2 The OHL would continue on a generally south-east heading, passing approximately 250 m north and east of Loch Dubh Cul na Capulich, and continue alongside existing haulage routes within the forest land where possible, deviating around an area of deep peat before returning to follow the haul road until its T-junction. From here, the OHL would continue on a south / south-east heading, remaining west of the peatland restoration works and standing forest blocks, where possible. The OHL would temporarily realign with the haul road approximately 1.5 km north north-west of Loch Dail no Copaig, cross over the Abhainn Sgeamhaidh and continue further south-east.

3.4.3 Approximately 1.2 km east of Loch Dail na Copaig, the OHL would angle to the south then south-west, running parallel to the boundary of an area of standing conifer plantation and making use of the wide forest ride. The

OHL would then angle south, between forest blocks, making best use of existing open space, before turning to the west southwest to route around the base of Cnoc a' Bhreac-leathaid, closer to the A836. The OHL would continue along a south-southwest route near the edge of the forest, before finally taking a southeast direction around Cnoc a' Chatha to connect into the proposed Dalchork substation. The total length of the OHL is approximately 22 km.

3.4.4 The OHL oversails a number of small watercourses which feed the River Tirry, which ultimately feeds into Loch Shin. At the north end, near the consented Creag Riabhach Wind Farm, the OHL also oversails the Allt a' Chràisg, which ultimately feeds into Loch Naver.

H Wood Poles

3.4.5 The proposed H pole is based on a Trident design requiring a matched pair of poles erected 2.5 m apart with supporting crossarm steelwork linking the poles at the top. The proposed H wood pole would have a nominal height of approximately 10 – 15 m, up to a maximum of 18 m as discussed previously, depending on ground conditions and topography (including insulators and support). The OHL would be composed of a combination of suspension poles, angle / tension poles and terminal poles (at the sealing end structure):

- suspension poles: these are used for straight sections of OHL where there is no need to terminate the conductor. 240 pairs of suspension poles would be required for the Proposed Development;
- angle poles: these are used either in-line, where there is a need to terminate the conductors, and / or where there is a need to change the orientation of the OHL. 66 pairs of angle poles would be required; and
- terminal poles: these are used where there is a requirement to terminate the OHL on to an underground cable. Two terminal poles are anticipated at pole 39 and pole 40 to accommodate a section of underground cable in the vicinity of The Crask.

3.4.6 A schematic of the proposed wood pole (suspension pole) is shown in **Plate 3.1** below, while a photograph of a similar OHL with H wood pole is shown in **Photograph 3.1**.

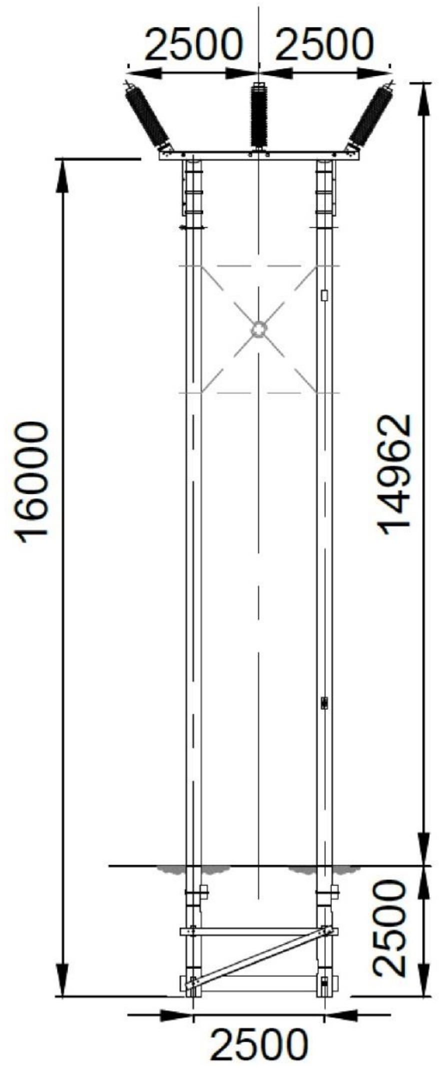

Plate 3.1: Proposed Pole Schematic

Photograph 3.1: Similar OHL Type

Conductors and Span Length

3.4.7 Three conductors in horizontal formation and made from all aluminium alloy would be strung between each H pole forming a single circuit. Stays would be required at angle poles and in areas of soft ground. The spacing between individual poles would vary depending on topography and altitude and would be determined after a detailed line survey but would be approximately 80 m to 100 m apart.

3.4.8 An All Dielectric Self Supporting (ADSS) fibre optic cable would be strung under the conductors for operational telecommunication purposes.

Sealing End Structure

3.4.9 Sealing end structures would be utilised to allow connection of the OHL to the underground cable, indicated on **Figure 3.1**: The Proposed Development at OS Grid References 252360, 925192 and 252670, 924118. The final position of the sealing end structures would be determined following detailed design and further ground investigation, if required. The sealing end structures would each comprise a small platform accommodating the sealing end equipment and downleads mounted on wood poles. Cables would emerge from below ground and would be affixed to the structures to reach the platforms. The cables would be enclosed in protective boxing and anti-climb measures would be installed on the structures for safety reasons. The exact design of the sealing end structures would be confirmed by the Principal Contractor. A typical sealing end structure is shown on **Photograph 3.2** below.

Photograph 3.2: Typical Sealing End Structure

3.4.10 In order to illustrate the appearance of the Proposed Development in situ, two photomontages have been produced, included as **Figure 3.2**: Visualisation Location 1 North of Crask, and **Figure 3.3**: Visualisation Location 2 Tirryside. **Figure 3.2** indicates the appearance of the Proposed Development from North of the Crask Inn, looking southwards, at OS Grid Reference 252300, 925036 (location shown on **Figure 3.2**). **Figure 3.3** indicates the appearance from a location on the unnamed road at Tirryside, approximately 140 m north of the residence of Gunnscroft, at OS Grid Reference 257004, 911075 (location shown on **Figure 3.3**). The photomontages have been produced in accordance with THC's Visualisation Standards[2] and illustrate poles at 15 m height; the upper limit of the nominal height range.

3.5 132kV Underground Cable Installation

3.5.1 Approximately 1.4 km length of single circuit 132 kV cable would be installed between pole 39 and pole 40 by The Crask. The proposed location of the underground cables is shown on **Figure 3.1**: The Proposed Development.

3.5.2 A working corridor of approximately 30 m would be required during the installation of the 132 kV underground cables. The proposed cabling would comprise one electrical circuit in a single trench comprising of three phases (cables) in a ducted trefoil (triangular) formation. There would also be one fibre duct installed within the trench. The trench would be approximately 0.65 m wide and 1.7 m in depth. In some instances, the trench could be made wider (through benching and battering) for stability and safety of the workforce.

3.5.3 The trench bottom would be uniform with adequate clearance on each side of the ducts and be free from roots, organic debris, clods, rocks, stones, and other materials likely to cause damage to the cable duct.

[2] The Highland Council Visualisation Standards: https://www.highland.gov.uk/downloads/file/12880/visualisation_standards_for_wind_energy_developments

3.5.4 Trench walls would be supported appropriately where necessary to ensure trench stability. Excavations would be kept free from water by use of mobile pumps, with water pumped to a suitable location as agreed on site by the Environmental Clerk of Works (ECoW) and in accordance with the Applicant's GEMPs. Drainage design measures to ensure the discharge would not result in pollution to surface water will be set out in the Construction Environmental Management Plan (CEMP).

3.5.5 All excavated material would be carefully stored a minimum of 10 m and downslope of any adjacent watercourse with particular care taken to prevent any risk of runoff or windborne dry sediment being discharged into the watercourses.

3.5.6 Engineered backfill would be placed around the cable ducts in appropriate layers to protect the cable from accidental damage, and to ensure the desired cable rating is achieved. A 75 mm minimum bedding layer of stabilised backfill would be laid in the trench to provide bedding for the ducts. Marker boards would then be placed on top of the engineered fill. Excavated material would then be placed on top of the marker board and compacted in place.

3.5.7 Reinstatement of the surface layers would be completed by returning the remaining excavated material to the trench in layers, in reverse order with the existing vegetation placed on the trench where possible.

3.5.8 Due to the length of the cable route there would be an inline joint installed. A joint bay (where lengths of cable are joined) would be required at the midpoint of the route. The joint bay slab would be approximately 14 m long by 4 m wide by 1.8 m deep. The bay could be wider if the side were to be battered back. The cable design would have a bonded earthing arrangement which would have either above ground link pillars or boxes installed below ground in a concrete chamber.

3.5.9 To mitigate against flood risk and pollution, and to avoid blocking fish passage, the Applicant would propose to cross beneath the bed of the River Tirry by The Crask with a Horizontal Directional Drill (HDD). This would require the establishment of two temporary compounds (approximately 50 m by 50 m) on each side of the river located outwith the floodplain. Access to these compounds would be via a temporary stone road from the A836. An example of a recent HDD compound setup is shown in **Photograph 3.3** below.

Photograph 3.3: Example HDD Compound

3.5.10 Once the compounds were established, the HDD would be progressed in four phases:

- Phase 1: Drill a narrow pilot hole on a pre-determined path;
- Phase 2: Drill a larger hole following the alignment of the pilot hole;
- Phase 3: Install cable ducts in the newly established hole; and

- Phase 4: Install electrical cables within the ducts.

3.5.11 A directional drill rig would be set up at one end of the section, and then drill to the target location. At the end of the drilling process the drilled material and sediment accumulated in the drill recycling tanks would be removed and disposed of or used for agricultural purposes in an appropriate manner. The HDD launch and reception pits and associated temporary infrastructure would be fully situated within the temporary compounds.

3.5.12 The HDD process involves the use of a drilling fluid made up primarily of water and clay. The purpose of this fluid is to remove cuttings from the borehole, stabilise the borehole, and act as a coolant and lubricant. The main clay component in the fluid is bentonite.

3.5.13 The arrangement of HDD equipment and associated infrastructure within the compounds would vary according to local conditions and identified sensitive receptors. All equipment would be situated at least 20 m from any watercourse.

3.5.14 On the successful installation of the cables all temporary works would be removed and the land reinstated.

3.5.15 Advice on the requirement for Controlled Activity Regulations (CAR) consent would be discussed and agreed with SEPA prior to the start of works on site to ensure appropriate controls are put in place to prevent impairment of surface or groundwater by the HDD works.

3.6 Construction Programme

3.6.1 It is anticipated that construction of the project would commence in May 2021 with completion by April 2022, following the granting of consents, although detailed programming of the works would be the responsibility of the Principal Contractor in agreement with the Applicant.

3.6.2 The detailed construction phasing and programme would be subject to change as the design progresses and also due to necessary consents and wayleaves being agreed. The construction programme is discussed in further detail in Section 3.8 below.

3.7 Construction Environmental Management

3.7.1 A contractual requirement of the Principal Contractor would be the development and implementation of a CEMP. This document would detail how the Principal Contractor would manage the construction of the Proposed Development in accordance with all mitigation commitments detailed in this EIA Report, and any conditions attached to statutory consents and authorisations. The CEMP would reference General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs), developed by the Applicant, the latter of which are included in **Appendix 3.2**. The CEMP would also include a Stage 2 Peat Management Plan (PMP) based on the findings of further site investigations, a Water Management and Drainage Strategy, a Pollution Prevention Plan and a Site Waste Management Plan. An outline of the CEMP is provided in **Appendix 3.3**: Outline Construction Environmental Management Plan.

3.7.2 Chapter 12: Schedule of Mitigation provides a summary of all mitigation measures included in this EIA Report.

3.7.3 The implementation of the CEMP would be managed on site by a suitably qualified and experienced ECoW, with support from other environmental professionals as required. The ECoW will have the authority to 'stop the job / activity' if a breach or potential breach of mitigation or legislation occurs.

3.7.4 The Applicant would undertake monthly inspections and quarterly audits to ensure compliance with the CEMP, and conditions of Section 37 consent.

3.7.5 The requirement for a Construction Site Licence (CSL), shall be discussed with SEPA, and if a CSL is required this shall be in place prior to the start of works on site.

3.8 Construction Practices and Phasing

Phase 1 - Enabling works

Asset Marking

3.8.1 As detailed within Chapter 4 of this EIA Report, consultation with Scottish Water identified that the OHL would cross a Scottish Water raw water pipe at a perpendicular angle at approximate OS Grid Reference 258010, 912720. Prior to works commencing Scottish Water shall be consulted to identify the exact location of the main and, its location would be marked out to prevent accidental damage to the pipe during construction and operation of the proposed development.

Road Improvements and Access

3.8.2 Vehicle access would be required to each pole location during construction to allow excavation and creation of foundations and pole installation. Detailed access proposals would be developed by the successful Principal Contractor. However, access arrangements would be likely to include the following:

- use of the public highway, and existing forestry haulage roads and access tracks would be used during construction wherever possible. Some minor improvements may be required to some of these tracks;
- use of low pressure tracked vehicles and temporary access panels (E.g. bogmats, Live Trakway, Terrafirma Durabase, or similar) would be used for transport in boggy / soft ground areas. In particular, in areas where peat depth is greater than 1 m or where sensitive habitats have been identified, use of temporary access panels would ensure hydrological connectivity is maintained and avoid compaction of the peat or substrate below. These journeys would be kept to a minimum to minimise disruption to habitats along the route; and
- short sections of permanent new stone access tracks would be required as part of commitments made to landowners to ensure the Proposed Development does not isolate blocks of commercial forestry, as well as prevent safety risks to the operation of these blocks. The installation would comprise stone access tracks using either a conventional or floating technique as appropriate to the ground conditions.

3.8.3 In addition to the above, there would be requirements for the improvement or establishment of new bellmouths off the public road.

Forestry Removal

3.8.4 The Proposed Development would largely pass through an area of commercial forest plantation. Where the Proposed Development passes through areas of woodland or forestry, an operational corridor would be required to facilitate the ongoing safe operation of the OHL. This would be the distance at which a tree could fall and cause an outage to the overhead line. As discussed in Chapter 11: Forestry, the operational corridor would be kept to a minimum, dependent on factors such as topography and tree species. For avoidance of doubt, the forestry assessment does not provide an assessment of any felling or restocking requirements outwith the operational corridor. These works are the responsibility of the landowner and will be undertaken in accordance with the requirements set out within The Forestry and Land Management (Scotland) Act 2018.

3.8.5 Dalchork Forest is an active Forestry and Land Scotland (FLS) plantation, which is undergoing extensive felling and restocking presently, and over the coming years. Many of the forestry compartments through which the OHL is proposed to pass through have already been felled, and as such felling requirements associated with the Proposed Development would be significantly less than for a standing plantation.

3.8.6 Forestry considerations are discussed further within Chapter 11 of this EIA Report.

Site Compounds

3.8.7 Temporary compounds and laydown areas would be required to facilitate the construction of the Proposed Development. The locations of these compounds would be determined by the Principal Contractor once they are appointed. Once these area(s) have been identified, the Principal Contractor would consult with the planning authority, and any other relevant statutory authority, to ascertain whether statutory permissions are required. Where statutory permissions are required the Principal Contractor would be responsible for securing all permissions necessary to operate these sites.

Phase 2 – Construction works

Foundations & H-pole construction

3.8.8 The foundations for a double trident wood H pole would be installed via the use of a tracked excavator to excavate a trench approximately 2 m wide, 4 m in length, and 2.5 m deep, into which the poles would be installed before the excavated material is reinstated. During excavation, different soil horizons would be stored separately and backfilled in the order they were removed. Where suitable turves are available they would be stripped, and stored separately from sub soils to be reused in final reinstatement.

3.8.9 In areas of soft ground and / or very deep peat where firm ground cannot be found 'bog shoes'[3] may be added to the foundations to maximise stability of the structure by floating the structure with wider foundations.

3.8.10 Foundation types and designs for each pole would be confirmed following detailed geotechnical investigation at each position. In some pole locations, it may be necessary to add imported hardcore backfill around the pole foundations to provide additional stability in areas where the natural sub soils have poor compaction qualities, however this would be minimised as far as reasonably practicable.

3.8.11 Foundation and pole erection teams would consist of five to six operatives per team, each equipped with two tracked excavators, specialist tracked ATVs, rock breaking equipment and excavation formwork. Operatives would be present on the ground to position and centralise the poles into their foundations before release of the structure.

3.8.12 Pole structures would be assembled completely within the laydown areas laid out prior to transportation to the required locations. The assembled pole structures would be moved directly from the assembly areas to the pole site, either by tracked machine or helicopter where access is particularly difficult and / or remote from existing access tracks, and erected utilising one or two excavators, dependant on the complete H pole assembled weight. Stays would be installed at angle and terminal poles and potentially on cross slopes for stability.

[3] 'bog shoes' typically consist of large sections of timber, similar in size to railway sleepers, being bolted to pole foundations to increase their width by 2 to 3 m, see images below

Conductor Stringing

3.8.13 The conductors would be delivered to site on wooden drums in pre-determined pulling section lengths. Prior to stringing the conductors, temporary protection measures (e.g. netted scaffolds) would be required across public roads and existing access tracks. Conductor stringing equipment (i.e. winches, tensioners and ancillary equipment) would be set out at either end of pre-selected sections of the OHL.

3.8.14 A typical stringing team would consist of approximately 12 operatives. The route would be split into manageable sections, temporary backstays installed and pilot ropes pulled out through the section to be strung. The conductor drums would be mounted on stands at one end of the section to be strung and the conductor fed around a tensioning machine. At the opposite end the pilot rope would be fed around the puller winch bullwheels, prior to pulling. The tensioner would maintain the correct tension throughout the conductor pulling whilst the puller provides the 'pull'. Once the new conductor reaches the puller the conductor pulling would be stopped. The conductor would be terminated at the puller end and tensioned by the tensioner. This process would be repeated until the complete section has been sagged and made off to specified design tensions.

3.8.15 The installation of the ADSS fibre optic cable would be undertaken using a similar process to the tension stringing method described above.

3.8.16 In challenging sections, to avoid the installation of new temporary access tracks, a helicopter can be utilised to assist with stringing conductors. The conductor installation team would utilise tracked ATVs for daily access along the line route.

3.8.17 It is anticipated that any necessary consents (e.g. planning consent or CAR licenses) required for access or site establishment during construction would be acquired by the Principal Contractor.

Underground Cable Installation

3.8.18 This is detailed in Section 3.5 above.

Phase 3 – Commissioning

3.8.19 The underground cable, OHL and support poles would then be subject to an inspection and snagging process. This would allow the successful Principal Contractor and the Applicant to check that the works have been built to specification and are fit to energise. The Proposed Development would also go through a commissioning procedure for the switchgear, communications and protection controls through the substations at Creag Riabhach Wind Farm and Dalchork. The circuits would then be energised from the substations.

Phase 4 – Reinstatement

3.8.20 Following commissioning of the Proposed Development, it is anticipated that all areas disturbed during construction would be reinstated. Reinstatement would form part of the contract obligations for the successful Principal Contractor and would include all works sites, such as underground cables, pole locations and construction compounds.

3.8.21 Reinstatement principles would be in accordance with the Applicant's GEMPs and best practice measures, as well as mitigation proposals recommended by the environmental professionals undertaking the assessment which would be incorporated into the project CEMP.

3.9 Construction Employment and Hours of Work

3.9.1 The Applicant considers it important to act as a responsible developer with regards to the communities which host the construction works. The delivery of a major programme of capital investment provides the opportunity to maximise support of local communities. Employment of construction staff would be the responsibility of the successful Principal Contractor; however, the Applicant would encourage the successful Principal Contractor to make use of suitable labour and resources from areas local to the location of the Proposed Development.

3.9.2 It is envisaged that there would be a number of teams working at the same time along the route of the Proposed Development. The resource levels would be dependent on the final construction sequence and would be determined by the successful Principal Contractor.

3.9.3 Construction working is anticipated to be during daytime periods only. Working hours are currently anticipated between approximately 07.00 to 19.00 in summer and 07.30 to 17.00 (or within daylight hours) in winter. Given the remote location, distance from sensitive receptors and the nature of the Proposed Development the Applicant anticipates nuisance from construction noise to be negligible. As such, the Applicant wishes to retain the option of working up to seven days a week. Throughout the construction period the Applicant shall maintain contact with the local community to ensure the Proposed Development will not unduly affect residents, their livelihoods, places of worship or local events.

3.10 Construction Traffic

3.10.1 Construction of the Proposed Development would give rise to regular numbers of staff transport movements, with small work crews travelling to work site areas. It is anticipated that the successful Principal Contractor will identify a single main compound area, with a safe area for parking away from the public highway and will consult with the planning authority to determine whether a separate application for permission for the compound would be required.

3.10.2 Vehicle movements would be required to:

- construct temporary compounds / laydowns;
- upgrade access roads, and construct temporary and permanent access tracks;
- deliver the foundation and pole components and conductor materials to site;
- transport of the workforce;
- deliver and setup the mobile welfare facility units; and
- deliver and collect materials and construction plant from the main site compound and to individual pole locations.

3.10.3 The successful Principal Contractor would determine where access is required, and for which items of plant, and prepare a Traffic Management Plan in consultation with the Applicant and the local roads authority. The Traffic Management Plan would describe all mitigation and signage measures that are proposed on the public road accesses based on access maps and subsequent site assessments.

3.10.4 **Appendix 3.3** contains a Transport Assessment which presents information on likely traffic routes, types and movements, and likely impacts of development traffic through comparison with baseline traffic data. It also outlines potential access routes and road improvements for construction of the Proposed Development.

3.11 Operation and Management of the Grid Connection

3.11.1 The wooden H poles typically have a lifespan of 40 years, varying by exposure and weather patterns.

3.11.2 In general, given the nature of the Proposed Development, there would be a negligible or no demand for energy, materials or natural resources during the operational life of the OHL. OHLs require very little maintenance. Regular inspections are undertaken to identify any unacceptable deterioration of components, so that they can be replaced. From time to time, inclement weather, storms or lightning can cause damage to either the insulators or the conductors. If conductors are damaged, short sections may have to be replaced.

3.11.3 During the operation of the OHL, it would be necessary to manage vegetation along the wayleave to maintain required safety clearance distances.

3.12 Decommissioning

3.12.1 The expected operational life of the Wind Farm is anticipated to be 25 years. If, at the end of this period, a decision is made to decommission the Wind Farm, the Proposed Development may also be decommissioned if there no other users of this infrastructure. Where decommissioning occurs all components of the OHL, inclusive of wood poles, conductors and fittings, would be removed from site and either recycled or disposed of appropriately, and the land reinstated.