3 Proposed Development Description

3.1 Introduction

1.1.2 This chapter of the EIA Report describes the components of the Proposed Development for which consent is being sought, for the purposes of informing the identification and assessment of likely significant effects. It includes details about the construction, operation and decommissioning of the Proposed Development.

1.2.2 This chapter is supported by the following appendices:

- **Technical Appendix 3.1: Outline Construction and Environmental Management Plan (CEMP);**
- **Technical Appendix 3.2: Outline Borrow Pit Management Plan (BPMP);**
- **Technical Appendix 3.3: Outline Pollution Prevention Plan (PPP).**
- **Technical Appendix 3.4: Outline Outdoor Access Management Plan (OAMP); and**
- **Technical Appendix 3.5: BESS Fire Risk Statement.**

1.3.2 A number of figures have also been prepared to support the chapter, which provide an overview of the key components of the Proposed Development.

3.2 Site Location and Description

2.1.2 The area bounded by the red line boundary on **Figure 1.2** shall be referred to as 'the Site'. The Site is located on elevated open moorland, located approximately 27km south-east of Inverness, and approximately 5.5km south of the village of Tomatin.

2.2.2 The Site comprises predominately managed upland grouse moorland with agricultural fields and mixed woodland in lower altitude areas. Clune Burn and Allt Lathach traverse the Site along with other smaller tributaries running into the River Findhorn that lies to the north-west, out with the Site boundary.

2.3.2 The Site inclines generally in a north-east to south-west direction, reaching the highest point of the Site, 750m, at Carn Dubh'Ic an Deoir. The north-western edge is bounded by the River Findhorn and the northeastern boundary by the A9. The Site can be approximately divided by four main watercourses that flow north into the River Findhorn: Allt Phris, Clune Burn, Allt Lathach, and Wester Strathnoon Burn.

2.4.2 The Site is mainly used as a grouse moor, managed by grazing livestock such as sheep, and regular burning of mature heather to provide new growth. The Site also consists of small patches of grassland along the northern boundary used by grazing livestock, a block of conifer plantation in the north-east, and an area of ancient deciduous woodland on the banks of the Allt Phris.

2.5.2 The Site is centred on Ordnance Survey grid reference E 279591, N 823033, and covers an area of approximately 3,300 ha with wind turbines occupying hills locally known as Carn Ruighe Shamhraich, Carn Prhis Mhoir and Carn Coire na Caorach.

2.6.2 Clune Burn, Allt Lathach, Wester Strathnoon Burn, and Allt Phris flow through the Site into the River Findhorn that binds the northern edge. The north-eastern edge of the Site is bound by the A9.

2.7.2 The Proposed Development comprises the following:

- up to 26 three-bladed horizontal axis wind turbines of up to 200m tip height;
- at each wind turbine, associated low to medium voltage transformers and related switchgear;
- wind turbine foundations;
- hardstand areas for erection cranes at each wind turbine location;
- a network of access tracks including watercourse crossings, passing places, turning heads, and new Site entrance from the U2856;
- borrow pit(s) (dependent on availability of stone within the Site);
- a substation compound containing electrical infrastructure, control building, welfare facilities and a communications mast;
- a battery energy storage system (BESS), rated at 100MW and associated compound;
- a network of buried electrical and communication cables;
- temporary construction, gatehouse and batching plant compounds;
- signage; and
- habitat management and biodiversity enhancement (see **Technical Appendix 7.5** for further details).

2.8.2 The Proposed Development is expected to operate for up to 40 years following which decommissioning of the wind turbines and other infrastructure would be undertaken as required.

Proposed Development Layout

2.9.2 **Figure 1.3** presents the infrastructure layout of the Proposed Development.

2.10.2 **Table 3.1** gives the proposed centre point location, tip height and hub height for each of the proposed wind turbines.

Table 3.1: Wind Turbine Locations

Wind Turbine	Easting	Northing	Tip Height (m)
T1	281637	820368	200
T2	281329	819817	200
T3	280657	820041	200
T4	281085	820446	200
T5	281319	821288	200
T6	280690	821229	200
T7	280433	820723	200
T8	280008	820187	200
T9	279489	820440	200
T10	279942	821007	200
T11	280292	821670	200
T12	279901	822081	200
T13	279739	821537	200
T14	278962	820720	200
T15	278430	820902	200
T16	279293	821181	200
T17	279210	822098	200
T18	279151	822661	200
T19	278898	821624	200
T20	278331	821549	200
T21	277848	821218	200
T22	277853	822135	200
T23	278643	822217	200
T24	278201	822574	200
T25	277293	822166	200
T26	276906	821701	200

2.11.2 For the purpose of assessment, a maximum wind turbine tip height of up to 200m to tip has been used. Where necessary for assessment purposes a rotor blade diameter of 162m has been used although the blade length may vary (within the maximum wind turbine tip height) depending on wind turbine availability at the time of construction.

3.3 Construction Phase

Proposed Infrastructure

3.1.2 Prior to the commencement of construction, a Construction Environmental Management Plan (CEMP) will be produced setting out in detail the individual items of works associated with the construction of the Proposed Development (see **Technical Appendix 3.1: Outline CEMP**).

3.2.2 Below is a high-level overview of the infrastructure that forms the Proposed Development including reference to relevant figures submitted with the application. Where applicable, it includes construction and reinstatement methodologies. For the purposes of carrying out the assessments on construction activities in the EIA Report, the reasonable worst-case scenario has been adopted.

Wind Turbines

3.3.2 Consent is being sought for the installation and operation of up to 26 three-bladed horizontal axis wind turbines.

3.4.2 The specific wind turbine model has not yet been selected but to inform modelling and assessment a wind turbine up to a maximum blade tip height of 200m above ground level has been assumed. Each with a hub height of approximately 119m, and rotor diameter of approximately 162m. Indicative drawings of the proposed wind turbines are presented in **Figure 3.1**.

3.5.2 Each of the wind turbines consists of the following components:

- blades;
- hub;
- nacelle;
- tower sections; and
- internal or external transformer.

3.6.2 Three blades will attach to the hub forming the rotor assembly which is mounted to the nacelle. The nacelle contains the gearbox, generator and associated control and monitoring equipment. The nacelle and rotor assembly are mounted atop a tapered tubular tower mounted onto a reinforced concrete foundation.

3.7.2 All wind turbine components are pre-fabricated off-site. Towers would likely be four to five sections and made from steel and the blades from fibreglass. It is proposed that the wind turbine tower, nacelle and blades be finished in a semi-matt, off-white/pale grey colour (RAL colour 7035).

3.8.2 Wind turbines shall not carry any symbols, logos or other lettering except where required under other legislation. However, it is proposed to add wind turbine numbers to the base of each tower to aid service engineers during the operational phase of the wind farm. The identifying numbers would be up to 1,000mm tall by 900mm wide and would be positioned between up to 3m from finished ground level in order to be visible from the approaching access track.

3.9.2 External transformer housing would be situated adjacent to each of the wind turbine towers. The requirement for such structures, along with their dimensions, would vary based on the final wind turbine choice. It is possible that the transformer will be internal to the wind turbine structure however an indicative design for a typical external transformer housing is included in **Figures 3.2a** & **3.2b**.

3.10.2 Since all wind turbines in the Proposed Development exceed 150m above ground level to blade tip height, they are within scope of Article 222 of the Air Navigation Order[1], which requires all obstructions of 150m or more above ground level to be fitted with medium intensity steady red lights on the highest practicable point.

3.11.2 **Chapter 12: Aviation, Radar & Other Issues** provides details of a reduced lighting scheme proposed for the wind turbines, which has been agreed with the CAA, and **Chapter 5: Landscape and Visual Impact Assessment** assesses the associated impacts of this lighting scheme.

Wind Turbine Foundations

3.12.2 Foundations will be required to support the wind turbines. These are typically steel reinforced concrete structures constructed in the ground to which the wind turbines are bolted to. Until a detailed ground investigation can be carried out it is not clear what form the foundation will take. Wind turbine foundations are typically either gravity type foundations or piled type foundations.

3.13.2 Wind turbine foundations 25m in diameter have been assumed for the purpose of this EIA Report.

3.14.2 Regardless of the sub-structure, the above ground finish will see a 4.5m – 6m diameter foundation plinth protrude from the ground to support the wind turbine. It is proposed that a 5m wide maintenance path surrounds the plinth connecting to either the adjacent access track or crane hardstand.

3.15.2 **Figures 3.2a** & **3.2b** present the typical design for a both gravity type and piled type foundations.

Crane Hardstands

3.16.2 Adjacent to each wind turbine, an area of permanent hardstand approximately 55m x 35m will be constructed of compacted stone bearing directly on a suitable formation strata for use by the erection cranes. The exact geometry and position of the crane hardstands will depend on the wind turbine supplier's specifications, the cranes selected for erection and the findings of detailed ground investigations prior to construction. An indicative crane hardstand arrangement is presented in **Figure 3.3**. Some areas of temporary hardstand may also be constructed.

3.17.2 The crane hardstands would be constructed using the same methodology as the excavated access tracks described in 3.3.22 – 3.3.25 below.

3.18.2 After wind turbine erection is complete, the temporary hardstand areas (as shown on **Figure 3.3**) would be reinstated. There would be a need to use cranes from time to time during the operational phase of the Proposed Development. The 'Good Practice during Wind Farm Construction'[2] guide (Page 34, July 2024) recommends that crane hardstand areas are not covered with peat or topsoil. Therefore, the crane hardstands would be left uncovered, which would ease maintenance activities and comply with best practice guidance.

Access Tracks

3.19.2 Approximately 27.3km of access track will be constructed for the Proposed Development as shown in **Figure 1.3**. This comprises approximately 20.8km of new track construction, both cut and floated, and 6.5km of upgrade to an existing access track construction. The access track layout has been designed in order to maximise the use and upgrade of existing tracks as far as reasonably practicable.

3.20.2 For construction of access track, alternative methods would be utilised for different areas of the Site, depending on Site specific conditions. For each method, the access track running width shall be approximately 5m and will be constructed of compacted crushed stone. Access track widths may also be wider for short sections such as along steep gradients, at passing places, on sharp bends or turning heads and junctions.

[1] https://www.caa.co.uk/uk-regulations/aviation-safety/civil-aviation-act-1982-the-ano-2016-the-rules-of-the-air-2015-and-the-dg-regulations-2002/the-civil-aviation-air-navigation-order-2016/

[2] https://www.nature.scot/doc/good-practice-during-wind-farm-construction

3.21.2 The track layout presented on **Figure 1.3** has been designed such that Abnormal Indivisible Load (AIL) delivery vehicles can approach wind turbine locations from both directions. As a result, only one full AIL turning head is included within the layout design to facilitate this delivery requirement at all turbine locations. Wind turbine blades will be lifted individually to the hub as single blade lifts.

3.22.2 It is expected that all access tracks would be excavated whereby overlying soil or peat material would be removed to a suitable formation strata from which the access track would be built in compacted stone.

3.23.2 Where peat depths are greater than 1m deep, it is generally more efficient to "float" the access track over peat using geogrid. Typical access track construction details are presented in **Figure 3.4**.

3.24.2 To assist with dust suppression, it is proposed that the initial 200m of access track, starting from the Site entrance is surfaced in road pavement.

3.25.2 For safety reasons, marker posts may be placed in the ground by the edge of the access track in order to guide on-site vehicles during times of poor visibility.

Watercourse Crossings

3.26.2 12 new watercourse crossings, and two upgraded watercourse crossings will be required as part of the Proposed Development. It is anticipated that these watercourse crossings will all be culverts. Details of the watercourse crossings are found in **Table 3.2**.

3.27.2 In accordance with relevant guidance from SEPA, a 50m buffer zone will be maintained around watercourses. The exceptions to these buffers will be where the existing access tracks are located within the buffer zone and where there are water crossings.

3.28.2 These watercourse crossings shall be designed to ensure that fish and mammal movement is not restricted. It is understood that applications will need to be made to SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) for authorisation of 11 of these watercourse crossings, having been identified on Ordnance Survey 1:50k mapping. An example design of a typical culverted watercourse crossing is presented in **Figure 3.8a**, whilst a typical bridge design (bottomless culvert) is presented in **Figure 3.8b**. Further information on watercourse crossings is provided in **Chapter 9: Geology, Hydrology and Hydrogeology** and in **Technical Appendix 9.3: Schedule of Watercourse Crossings.**

Table 3.2: Proposed Watercourse Crossings

Watercourse Crossing ID	Type	Existing or new	Easting	Northing
WXC01	Open culvert	New	282425	826267
WXC02	Open culvert or span bridge	New	282405	826250
WXC03	Culvert	Existing	281600	825831
WXC04	Open span culvert	New	281594	824365
WXC05	Open span culvert	New	280578	823939
WXC06	Open span culvert	New	279314	822889
WXC07	Open span culvert	New	280041	821981
WXC08	Open span culvert / bridge	New	279458	821519
WXC09	Open span culvert	New	278519	821491
WXC10	Culvert	Existing	278439	821515
WXC11	Open span culvert / bridge	New	277586	821844
WXC12	Culvert	New	277260	821797
WXC13	Open culvert or span bridge	New	277129	821794
WXC14	Culvert	New	280698	819728

Public Road Access

3.29.2 The Proposed Development will be accessed directly from the U2856 (Slochd – Tomatin Road) from a new priority access junction. **Figure 3.5** presents indicative layout of the new Site entrance.

3.30.2 Localised widening of the U2856 may be required to accommodate deliveries for wind turbine components. The exact details would be agreed with the local authority post submission.

3.31.2 The access junction will be constructed to provide a safe and efficient point of access to the Site from the public road network. The Site access arm to the junction will be a minimum of 6.5m wide to accommodate two-way HGV traffic and will be metalled to a minimum of 20m leading into the Site to prevent the transport of construction debris onto the public road. A gate would be provided at the junction, set back a minimum of 18m from the road verge to prevent incoming HGV traffic from backing up onto the road.

3.32.2 The junction will be constructed to adoptable standards within the limits of existing road adoption.

3.33.2 The access tracks leading from the access junction will be circa 5m wide and will be constructed from crushed stone. Passing places will be provided at specific locations to allow traffic to pass.

3.34.2 The access junction radii will be in accordance with The Highland Council (THC) and turbine supplier standards. A temporary load bearing surface will be provided to cater for Abnormal Indivisible Load (AIL) deliveries associated with turbine deliveries.

3.35.2 The junction will feature appropriate visibility splays in either direction. Appropriate traffic management and signage will be provided during the construction phase, in agreement with THC.

3.36.2 It is anticipated that the majority of construction traffic accessing the Site will come from the A9 and leave the A9 at the U2856 junction.

3.37.2 The existing railway overbridge on the U2856 is reaching the end of its operational life, and, following discussions with THC and Network Rail, RES has agreed to part fund the replacement of the bridge as part of the Proposed Development.

3.38.2 Network Rail and THC would be responsible for the design and planning application for the bridge, in line with their roles as the road authority and bridge owner, respectively.

3.39.2 The new bridge represents a significant public benefit and would be delivered by the developer for the use of all road users. The existing structure could then be removed, pending approval from The Highland Council and Network Rail.

3.40.2 Having crossed the railway, loads will turn left into the new Site access junction.

3.41.2 Wheel cleaning facilities will be set up at the above-mentioned entrance to Site from the U2856 to remove mud from the wheels of vehicles leaving the Proposed Development. Public roads will be inspected daily, and a lorry-mounted road brush will be employed to remove any mud or debris transferred onto the public roads from on-site activities.

Description of Abnormal Access

3.42.2 The most likely delivery port for the AIL components will be the Port of Inverness. From the port the AIL will travel along Stadium Road and onto the A9. From here AIL will travel south along the A9 towards Aviemore. AIL access to the minor road leading to the Site junction will be taken from the A9 turning right onto the U2856 junction. AIL traffic will cross the Highland Mainline railway, before entering the Site by means of a new access junction. **Figure 3.6** presents this route to Site from the Port of Inverness.

3.43.2 Public roads would be utilised and repaired where necessary. An assessment of the public road access is provided in **Chapter 10: Traffic & Transport**.

On-site Cabling

3.44.2 The wind turbines envisaged for use on the Proposed Development would initially generate electricity at 690 – 1,000V. This typically needs to be stepped up to the on-site distribution voltage of 33kV via the ancillary transformer, as mentioned above in the Wind Turbines section. Each wind turbine will be connected to the substation compound via underground electrical cables.

3.45.2 Cable trenches will accommodate these electrical cables, including also communication cables and the earthing cable network. **Figure 3.12** presents the typical cable trench cross section that shall be adopted across the Site. Where cables need to cross access tracks or hardstands they will be routed through ducts.

3.46.2 The layout of the cable trenches within the Site would generally run adjacent to the access tracks where possible. The route would be marked above ground with clearly identified posts, spaced at suitable intervals along the length.

Substation and Battery Energy Storage System Compounds

3.47.2 A substation compound is required to collect the electricity generated and distribute it off-site to the electricity grid system. A substation compound of approximately 88m x 87m is proposed at approximate Ordnance Survey grid reference E 278145, N 823075. It will be constructed of compacted stone bearing directly on a suitable formation strata, including reinforced concrete foundations for the buildings and ancillary equipment. The substation compound would contain 33kV/132kV step-up transformers, associated switchgear, telecommunications mast and ancillary equipment suitable for a transmission connection to the electricity grid system. The wind farm control building required at the substation compound would accommodate metering equipment, switchgear, the central computer system and electrical control panels. It is anticipated that the Transmission Operator will also require their own control building. In addition to the control buildings a welfare building will be installed for all personnel.

3.48.2 **Figures 3.9a** & **3.9b** present an indicative substation compound layout and elevations. This is indicative and the design and layout are subject to change once the expected point of connection is known, see Grid Connection section below.

3.49.2 The telecommunications mast is expected to be up to 10m tall. A typical elevation of the telecommunications mast is presented in **Figure 3.10**.

Battery Energy Storage System

3.50.2 In order to match on-site energy generation to energy demand, as well as facilitate options such as a reduction in any possible grid constraint requirements, the Proposed Development also includes a Battery Energy Storage System (BESS).

3.51.2 The BESS compound is proposed to be 120m x 136m, located adjacent to the substation compound. It will be constructed of compacted stone bearing directly on a suitable formation strata, including reinforced concrete foundations for the building and ancillary equipment. Within the BESS compound permanent containers, mounted on small concrete foundations, would house an energy storage device, inverters and other ancillary equipment. For each container there would be a transformer located on the hardstand.

3.52.2 There are two main ways in which the proposed BESS can be used for regulating output to the grid network. These are as follows:

- Dynamic Containment – Provides the required response time to stabilise the grid frequency when there are large fluctuations on the grid network; and
- Black Start Capability – Provides a service to restore the grid network following blackouts.

3.53.2 **Figures 3.11a** & **3.11b** present indicative BESS compound layout and elevations.

3.54.2 For both the substation and BESS compounds foul drainage will be provided in accordance with building control requirements and in agreement with SEPA.

3.55.2 A fire risk statement is provided in **Technical Appendix 3.5.**

Grid Connection

3.56.2 The proposed point of connection for the Proposed Development into the electricity grid system is at the substation compound. The substation for the Proposed Development detailed at paragraph 3.3.47 - 3.3.49 above will connect to the electricity grid system at Tomatin Substation, approximately 4km north west of the Site.

3.57.2 The connection would be comprised of buried 132kV cables and/or Over Head Lines (OHL). The Applicant has accepted a grid offer for connection in 2030. The exact arrangement of this grid connection is subject to detailed design by Scottish and Southern Energy (SSE) Transmission, the Transmission Operator (TO).

3.58.2 Any final grid connection route and associated consents would be the responsibility of the TO and this route would require further studies and would be subject to a separate consenting process and EIA if required.

Borrow Pits

3.59.2 The construction of access tracks, compounds, crane pads and substation area is anticipated to require approximately 68,549m^3 of rock.

3.60.2 Borrow pits may be used to provide the stone for the construction of access tracks, compounds and hardstands, subject to sufficient quality and quantity of stone being available at the identified borrow pit search areas, as indicated on **Figure 1.3**. These borrow pit search areas are shown as the maximum potential area of borrow pit extraction, but it anticipated that only a small percentage of these areas would be exploited. An indicative borrow pit arrangement is shown in greater detail in **Figures 3.14a-d**.

3.61.2 Final borrow pit locations within the borrow pit search areas would be subject to detailed ground investigations to confirm suitability of material.

Batching Plant

3.62.2 An on-site batching plant is proposed for the Site to provide concrete for use during construction. The batching plant measures 100m by 80m and is located at E 279300, N 823190. **Figure 3.15** presents a typical batching plant layout.

3.63.2 The batching plant equipment will include:

- concrete and aggregate storage bins;
- concrete batching equipment;
- wash out facilities;
- testing facilities;
- water supply; and
- waste storage area.

3.64.2 It is anticipated that a borehole would be sunk to provide a reliable water supply for the batching plant. Any borehole would be subject to suitable yields being available, which will be determined through future detailed ground investigation. Any borehole would require suitable authorisation from SEPA under CAR. Where appropriate, the use of surface water abstraction will be investigated as an alternative option.

Drainage

3.65.2 Drainage will be excavated adjacent to the structures where required. Surface water runoff will not be allowed to discharge directly into existing watercourses but will be routed through a sustainable drainage system (SuDS) in accordance with the Pollution Prevention Plan. An Outline Pollution Prevention Plan is provided as **Technical Appendix 3.3.** Typical drainage details have been presented in **Figures 3.7a, 3.7b, 3.7c** and **3.7d.**

Temporary Compounds

3.66.2 Due to the size of the Site, and number of turbines, two temporary construction compounds will be constructed to provide a secure area for office facilities and storage of materials and components. The main temporary construction compound of 80m x 50m will be required and is proposed to be located alongside the proposed access tracks approximately 1km into the Site from the proposed Site entrance at approximate Ordnance Survey grid reference E 281400, N 825725. A second temporary construction compound will be located at approximate Ordnance Survey grid reference E 279324, N 821502, within the main turbine array.

3.67.2 The temporary construction compounds will be constructed of compacted stone bearing directly on a suitable formation strata.

3.68.2 The temporary compounds will be used to accommodate a number of construction facilities including Site offices and meeting rooms, staff welfare facilities, storage and laydown areas for construction vehicles, plant, equipment, wind turbine components, other materials and aggregate recycling. The compounds will also provide sufficient parking for the on-site personnel, deliveries and visitors.

3.69.2 There will be a sealed bunded area where fuel and oil storage tanks will be situated, to prevent potential contamination in accordance with SEPA guidance the bunded area will be situated a minimum of 50m from any watercourse to reduce the risk of pollution entering watercourses.

3.70.2 Depending on the time of year and the stage of the construction programme, temporary lighting may be required at the temporary compounds and at work areas during working hours. It is not proposed that the lighting will be on outside of working hours.

3.71.2 A typical layout of the temporary construction compound is presented in **Figure 3.13**.

3.72.2 An additional security/gatehouse compound is also proposed at E 282188, N 826121, measuring 30m x 30m and located closer to the Site entrance. This will comprise of a security cabin and welfare facilities and will be used to control and direct vehicles entering the Site. It would be constructed in a similar manner to the main compound.

Signage

3.73.2 There would be a requirement for signage at the Proposed Development to provide safe day-to-day navigation, for emergency vehicles to navigate to emergencies, should they arise, as well as aid the development of comprehensive risk assessment for those visiting and using the Site.

Habitat Management & Biodiversity Enhancement

3.74.2 Parts of the Site comprise vegetation and peatland which has been historically degraded through management of the habitat for shooting, including muirburn, which dries out the peat leading to the introduction of poorer quality habitats. As part of the Proposed Development, RES would implement a number of habitat improvement proposals to restore these areas and encourage the formation of the high quality and important habitats that establish when they are undrained. See **Chapter 8: Terrestrial Ecology** and **Technical Appendix 8.6: Outline Biodiversity Enhancement and Restoration Plan** for further details.

Construction & Reinstatement

3.75.2 Construction of the Proposed Development will consist of the following key construction activities:

- ground investigation;
- construction of the Site entrance from the U2856;
- construction of the temporary compounds;
- construction of the temporary batching plant;
- construction of any public road widening along sections of U2856;
- construction of the access tracks, including passing places, turning heads, junctions, utilities crossings, drainage and water crossings;
- extraction of stone from borrow pits;
- construction of the substation compound;
- construction of the BESS compound;
- construction of the wind turbine foundations;
- construction of crane hardstands;
- excavation of trenches and laying of cabling adjacent to the access tracks connecting the wind turbines to the substation compound;
- delivery and erection of wind turbines;
- testing and commissioning of Site equipment including wind turbines;
- habitat enhancement works; and
- Site restoration and reinstatement.

Site Entrance & Public Road Widening of U2856

3.76.2 The construction method for Site entrance and public road widening would generally be as follows:

- Traffic management to be installed;
- Topsoil shall be removed and carefully stockpiled;
- New drainage shall be installed taking care to ensure that existing drainage will not be compromised;
- Road pavement and hardstand works to be completed to the design requirements;
- Line marking, signage, fencing, visibility splay clearance, and vehicle restraint systems required as part of the design will be installed;

Working of Borrow Pits

3.77.2 Excavation of material from the borrow pits will be carried out using standard quarrying techniques, which may include blasting and mechanical excavation.

3.78.2 The general methodology set out below for careful management of the borrow pit will be adhered to in order to minimise potential environmental impact.

3.79.2 A Borrow Pit Management Plan will be agreed with SEPA and the local authority prior to the commencement of construction. Provisions for the control of surface run-off during and post construction and the re-vegetating of working faces post-construction will be included.

3.80.2 As a worst case, it is anticipated that blasting may occur up to 3 times a week for the first twelve months, before tapering off and becoming less frequent.

3.81.2 Appropriate dust suppression at the borrow pits and any materials storage areas will be provided as required.

3.82.2 Once operations are sufficiently underway, restoration will take place progressively behind the working area to encourage re-vegetation. This will minimise any impact to the surrounding environment by minimising the working area at any point.

3.83.2 An Outline Borrow Pit Management Plan is provided as **Technical Appendix 3.2**.

Construction of Excavated Tracks, Hardstands and Compounds

3.84.2 The construction method for excavated tracks, hardstands and compounds would generally be as follows:

- The topsoil/peaty soils will be excavated and stored to one side for reuse during the reinstatement of the structure (see Technical Appendix 9.2: Outline Peat Management Plan;
- Excavation will be undertaken to competent material. Excavated subsoil material may be stockpiled temporarily adjacent to the excavation for later use as backfill or stored elsewhere on the Proposed Development. Temporary and permanent drainage shall be installed at the same time as the excavation works for the structure;
- In the case where competent material is lower than the required formation level the foundation will likely be over-excavated to competent material and compacted engineering fill placed to the required formation level;
- Where excavation is required to extend below the water table or in material which does not drain freely, appropriate pumping will be employed to keep the excavation dry. Water pumped from an excavation shall not be discharged directly to any watercourse;
- If ground conditions dictate a geotextile membrane will be applied;
- Crushed stone will be placed and compacted in layers to achieve the required structural dimensions;
- For the compounds, ducting and reinforced concrete foundations will be constructed at the required design level;
- Pre-fabricated buildings and electrical equipment will be delivered to Site and lifted into place;
- Drainage will be excavated adjacent to the structures where required. Surface water runoff will not be allowed to discharge directly into existing watercourses but will be routed through a sustainable drainage system (SuDS) in accordance with the Pollution Prevention Plan. An Outline Pollution Prevention Plan is provided as **Technical Appendix 3.3**;
- A surface water cut off ditch may be installed on the slope above the earthworks footprint where achievable given the topography; and
- Depending on depth and type of material, cut slopes are anticipated to be between 1:1 to 1:3.

Construction of Floated Access Tracks

3.85.2 Floated access track construction may be adopted where the ground conditions dictate. This system involves installing a geosynthetic reinforcement directly onto the organic vegetated layer and placing layers of crushed stone and additional geosynthetic reinforcement (if required by the design) above. If ground conditions require a geotextile membrane may be applied also.

Installation of Cabling

3.86.2 The cable trench construction and installation method would generally be as follows:

- Trenches will be excavated to approximately 1m in depth, and a suitable bedding material placed for which to lay the cables upon;
- The cables shall be laid directly onto the bedding material and spaced according to the design;
- The trench will then be backfilled and compacted with suitable material up to the required level and finished with a layer of topsoil to aid in the trench reinstatement;
- A suitable marking tape will be installed between the cables and the surface; and
- The cables will terminate at each wind turbine and at the substation compound.

Construction of Wind Turbine Foundations

3.87.2 The gravity type foundation construction method would generally be as follows:

- The topsoil will be excavated and stored to one side for reuse during the reinstatement round the finished foundation;
- Excavation will be undertaken to competent material. Excavated subsoil material may be stockpiled temporarily adjacent to the excavation for later use as backfill or stored elsewhere on in the Proposed Development. Temporary and permanent drainage shall be installed at the same time as the excavation works for the foundation;
- In the case where competent material is lower than the required formation level the foundation will likely be over-excavated to competent material and compacted engineering fill placed to the required formation level;
- Where excavation is required to extend below the water table or in material that does not drain freely, appropriate pumping will be employed to keep the excavation dry. Water pumped from an excavation shall not be discharged directly to any watercourse;
- A layer of concrete blinding will be laid directly on top of the newly exposed formation, finished to ensure a flat and level working surface;
- Steel reinforcement, the wind turbine anchorage system and cable ducts will be fixed in place and formwork erected around the steel cage;
- Concrete will be placed using a crane, pump or other suitable lifting device and compacted using vibrating pokers;
- The foundation will be backfilled with suitable material, and landscaped using the topsoil set aside during the initial excavation; and
- A maintenance path will be built leading from the access track or crane hardstand to the wind turbine door or access steps and around the wind turbine for maintenance.

3.88.2 The piled-type foundation construction method would generally be as follows:

- The topsoil will be excavated and stored to one side for reuse during the reinstatement round the finished foundation;
- A suitable level piling platform will be constructed which will likely consist of compacted stone designed to comply with the requirements of the piling rig being used;
- Formation of the pile shaft will be achieved by rotary methods to the required depth and embedment in the competent soils or bedrock. Any spoil produced shall be removed and stored at the selected location within the Site. Depending on the selected piling technique, it may be necessary to insert temporary casing into the ground to support the pile bore;
- Delivery and placement of the concrete into the pile bore will be undertaken using a concrete pump;
- The pile reinforcement cage may be installed before or after the concrete placement depending on the selected technique;
- On completion of all the piles within a wind turbine foundation, the piling rig and ancillary equipment shall be moved to the next wind turbine location as required; and
- A reinforced concrete pile cap, connected to the piles below, would then be constructed in much the same manner as the gravity-type foundation.

Erection of Wind Turbines

3.89.2 The following general steps will be undertaken in order to erect the wind turbines:

- Some components will be pre-delivered in sections and offloaded at the crane hardstands;
- The remaining components will be delivered on a just-in-time basis and be lifted directly from vehicle trailers;
- Components will be lifted by adequately sized cranes (one main crane and two smaller assist crane) and positioned on the foundations / other sections until the entire wind turbine is erected;
- Upon completion of the erection all fasteners will be tightened and the internal fit out of the wind turbine undertaken;
- The wind turbines will then be connected to the substation compound; and
- Wind turbine testing and commissioning will be undertaken before the wind turbines will be handed over as complete.

Reinstatement

3.90.2 Following construction, the Proposed Development aspects not required during operation will be reinstated. The anticipated type and extent of reinstatement is outlined below.

3.91.2 Where a re-turfing method is appropriate, such as along access track verges, the surface layer of soil and vegetation will be stripped and stored separately from the lower soil layers and replaced as intact as possible once construction is complete.

3.92.2 Local restoration will be carried out to retain the structure and composition of the original plant communities, as well as forming a stable area over the reformed ground, thus reducing erosion by rain, run-off, and wind.

3.93.2 Bare soil areas will be allowed to re-vegetate naturally in combination with reseeding using a low density (~20kg per hectare) seed mix which mirrors local vegetation to help bind the soil more quickly.

3.94.2 Access tracks, hardstands, and compounds are required throughout the operation of the wind farm to permit access for maintenance and repair operations. They will also be necessary to allow access during the decommissioning stage. Generally, the sloping verges of access tracks, hardstands, and compounds will be dressed with Site-sourced turf or seed bank material. If suitable material is generated during the construction of the Proposed Development, this material can be used to form a low-lying screening verge along the downhill side of the structures. This will assist in reducing the visibility of the structures. **Technical Appendix 9.2:** Outline Peat Management Plan provides further detail.

3.95.2 The temporary compounds will be reinstated into the surrounding landscape and restored to original conditions.

3.96.2 It is essential that the access track width is retained during the operation of the proposed wind farm to allow occasional crane access if required, hence no works to reduce the access track width, post wind turbine erection, are proposed.

3.97.2 Cable trenches would be similarly reinstated. Where practicable, vegetation over the width of the cable trenches would be lifted as turves and replaced after trenching operations to reduce disturbance.

Micrositing

3.98.2 Micrositing allows the locations of the wind turbines and infrastructure to be modified post-consent within specified parameters, following detailed ground investigation and ground clearance. Through industry experience, a micrositing allowance of up to 100m is considered appropriate for wind turbines and associated infrastructure, subject to certain conditions, such as ensuring buffers from watercourses are maintained. The assessments within this EIA Report account for the potential micrositing of the wind turbines and associated infrastructure.

Construction Programme

3.99.2 Construction of the Proposed Development is estimated to last approximately 23 months. An indicative programme for the construction activities of the Proposed Development is shown in **Table 3.3**.

Table 3.3: Outline Programme

Phase/Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Site Set-Up	■	■	■	■																			
Site Tracks & Hard Standings	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
SubStation& Control BLDG.					■	■	■	■	■	■	■	■	■	■	■	■	■	■					
BESS					■	■	■	■	■	■	■	■	■	■	■	■	■	■					
Foundation Construction					■	■	■	■	■	■	■	■	■	■	■								
Cable Installation														■	■	■	■	■	■	■			
Turbine Erection														■	■	■	■	■	■	■	■	■	
Reinstatement																		■	■	■	■	■	■
Site Demobilisation																					■	■	■

Construction Hours

3.100.2 In general, working hours for construction will be from 07:00 to 19:00 Monday to Saturday. No working is proposed on Sundays or public holidays.

3.101.2 Exceptions to the proposed working hours will be made for foundation pours and wind turbine erection. Concrete pouring for an individual wind turbine foundation must take place continuously and so activity will only cease when the pour has been completed. Wind turbine erection can only occur during periods of low wind speeds and so to minimise the construction programme, lifting operations may need to be scheduled out with the above hours. In addition, it may be necessary to complete a particular lifting operation to ensure the structure is left safe.

Environmental Management

Construction Environmental Management Plan

3.102.2 A Construction Environmental Management Plan (CEMP) will be prepared prior to the start of construction, detailing measures to avoid or mitigate potential effects associated with key construction activities. These will reflect and expand upon measures identified in the EIA Report and will be agreed with the local authority, in consultation with SEPA, NatureScot, and other stakeholders where appropriate. An Outline CEMP is provided as **Technical Appendix 3.1**.

3.103.2 The CEMP will, as a minimum, include details of:

- design philosophy and construction methodologies;
- surface and ground water management;
- water quality monitoring;
- flood risk management;
- private water supply management;
- waste and resource management;
- wastewater and water supply monitoring and control;
- noise and vibration control;
- dust and other emissions to air control;
- spoil management;
- peat slide monitoring and control;
- oil and chemical delivery and storage;
- temporary lighting management;
- existing on-site utilities management;
- construction traffic management;
- health and safety management;
- post construction reinstatement;
- public liaison provision; and
- decommissioning and restoration methodologies.

3.104.2 The CEMP will typically contain the following supporting documents:

- A Pollution Prevention Plan;
- A Peat Management Plan;
- A Site Waste Management Plan;
- A Borrow Pit Management Plan;
- An Outdoor Access Management Plan; and
- A Water Quality Monitoring Plan.

Pollution Prevention Plan

3.105.2 CAR dictates that a Construction Site License will be required from SEPA for the Proposed Development prior to commencement of construction. To make this application it is proposed that a Pollution Prevention Plan (PPP) would be prepared. Once approved by SEPA it would act as a supporting document to the CEMP. An Outline Pollution Prevention Plan is provided as **Technical Appendix 3.3**.

Peat Management Plan

3.106.2 Prior to construction of the Proposed Development a detailed ground investigation will be carried out. This will allow for the development of a post consent update of the Peat Management Plan, following the principles set out in the outline Peat Management Plan provided as **Technical Appendix 9.2**: Outline Peat Management Plan.

Construction Traffic Management Plan

3.107.2 As detailed in **Chapter 11: Traffic & Transport**, a Construction Traffic Management Plan (CTMP) would be developed to ensure road safety for all users during transit of loads to the Proposed Development. The CTMP would outline measures for managing the convoy and would set out procedures for liaising with the emergency services to ensure that police, fire and ambulance vehicles are not impeded by the loads. The CTMP would be developed in consultation with the local authority, the police, Transport Scotland and the local community and agreed before deliveries to the Proposed Development commence.

Site Waste Management Plan

3.108.2 The Proposed Development would produce small amounts of general, municipal and hazardous waste during its construction, operation and decommissioning. The Site Waste Management Plan (SWMP) would be put in place to ensure waste generated from the Proposed Development is kept to a minimum and does not have a significant cumulative effect on local waste management infrastructure.

Borrow Pit Management Plan

3.109.2 Prior to construction of the Proposed Development a detailed ground investigation will be carried out. This will allow the applicant to confirm suitability of the proposed borrow pits and update the Borrow Pit Management Plan (BPMP). An Outline Borrow Pit Management Plan is provided as **Technical Appendix 3.2**.

Outdoor Access Management Plan

3.110.2 Prior to construction of the Proposed Development an Outdoor Access Management Plan (OAMP) will be prepared in liaison with THC. It will detail the maintenance of safe public access routes during construction and long term public access during the operation of the Proposed Development. An Outline Outdoor Access Management Plan is provided as **Technical Appendix 3.4.**

Water Quality Monitoring Plan

3.111.2 A Water Quality Management Plan (WQMP) will be prepared following receipt of planning consent. The plan will detail proposed monitoring locations, monitoring frequency and analytical parameters based on the findings of the EIA Report and any subsequently submitted documents / information. The plan will also include trigger/action levels and outline protocols and procedures required in the event of an incident.

Environmental Clerk of Works (ECoW)

3.112.2 An ECoW would be appointed to undertake Site surveys, monitor the construction activities and report to both the applicant and local authority of any incidences. The ECoW will ensure compliance with the CEMP and any other environmental documentation required by planning condition. The ECoW would liaise closely with the applicant, providing expert advice to help rectify any potential environmental matters that arise during the construction phase.

3.4 Operational Phase

Duration

4.1.2 The Proposed Development would have an operational life of up to 40 years from final commissioning. The wind farm would largely be controlled and managed remotely, however there would be technicians onsite regularly.

Aviation Lighting

4.2.2 The turbines are over 150m to blade tip and, in line with guidance from the CAA, are required to be lit with medium intensity (2000 candela) steady red aviation warning lights in accordance with Article 222 of the UK Air Navigation Order (ANO) 2016. A second light serving as an alternative will also be provided in case of failure of the operating light.

4.3.2 The CAA Policy Statement on Lighting of Onshore Wind Turbine Generators in the United Kingdom with a maximum blade tip height at or in excess of 150m Above Ground Level (June 2017) allows lights to operate in a lower intensity mode “if the horizontal meteorological visibility in all directions from every wind turbine generator in a group is more than 5km.” In these circumstances, the 2000 candela lights could be operated at “not less than 10% of the minimum peak intensity specified for a light of this type” (200 candela).

4.4.2 Infrared lighting, complying with MOD requirements, will also be added to the turbine nacelles to comply with MOD lighting requirements. This is not visible to the naked eye.

Lighting Mitigation

4.5.2 A reduced lighting scheme has been proposed (see **Technical Appendix 12.1: Lighting Scheme**) which proposes the following mitigation in order to reduce any potential impacts on the night-time landscape by the lighting of the turbines:

- Medium intensity steady red (2000 candela) lights on the nacelles of turbines T02, T05, T08, T10, T12, T15, T18, T19, T24 and T26;
- a second 2000 candela light on the nacelles of the above turbines to act as an alternative in case of failure of the main light (note that both lights should not be lit at the same time);
- the visible lights on these turbines to be capable of being dimmed to 10% of peak intensity when the visibility as measured at the wind farm exceeds 5km.
- a scheme of infrared lighting to be agreed with the MoD (note that dimming permission is applicable only to visible lights, not infra-red lighting); and
- Intermediate level 32 candela lights are not required to be fitted on the turbine towers.

4.6.2 **Chapter 12: Aviation and Other Issues** provides details of a reduced lighting scheme proposed for the wind turbines which has been agreed with the Civil Aviation Authority (CAA) on 25 July 2024, and **Chapter 5: Landscape and Visual Impact Assessment** assesses the associated impacts of the Proposed Development on this basis.

Staffing, Maintenance and Monitoring

4.7.2 Once operational, the Proposed Development will not be permanently staffed, and it is envisaged that the amount of traffic associated with the Proposed Development will be negligible Traffic generated will comprise routine maintenance and service team visits, together with the occasional need for more extensive maintenance or repair. Wind turbine operations will be overseen by suitably qualified contractors.

4.8.2 Routine maintenance and servicing will take place two to four times per year. Servicing will include the performance of tasks such adjustment of blades, inspection of blade tip brakes and inspection of welds in the tower. Other visits to the Proposed Development will take place more frequently to ensure that the wind turbines are operating at their maximum efficiency. In the event of any unexpected events on-site appropriate repair works will be carried out.

4.9.2 The vehicle used for the majority of these visits is likely to be a small four-wheel drive vehicle, although there may be an occasional need for an HGV or crane to access the Site for heavier maintenance and repairs.

4.10.2 Ongoing access track maintenance will generally be undertaken in the summer months when access tracks are dry. Safe access will be maintained all year round.

4.11.2 The Proposed Development will have a sophisticated overall Supervisory Control and Data Acquisition system (SCADA) that will continually interrogate each of the wind turbines and the high voltage (HV) connection. If a fault were to develop which required an operator to intervene then the SCADA system would make contact with duty staff via a mobile messaging system. The SCADA system can be interrogated remotely. The SCADA system will have a feature to allow a remote operator to shut down one or all of the wind turbines.

4.12.2 An operator will be employed to monitor the wind turbines, largely through remote routine interrogation of the SCADA system. The operator will also look after the day-to-day logistical supervision of the Proposed Development and would be on-site intermittently.

4.13.2 If a fault should occur, the operator would diagnose the cause. If the repair warranted the Proposed Development being disconnected from the grid network then the operator would make contact with the TO. However, this is a highly unlikely occurrence as most fault repairs can be rectified without reference to the grid network. If the fault was in the electrical system then the faulty part or the entirety of the Proposed Development would be automatically disconnected.

4.14.2 Signage will be placed on the Proposed Development giving details of emergency contacts. This information would also be made available to the local police station and the TO.

3.5 Decommissioning Phase

5.1.2 In the event of decommissioning, or replacement of the wind turbines, it is anticipated that the likelihood of effects is similar to, or less than, that expected during construction. Decommissioning would be undertaken in line with best practice processes and methods at that time and will be managed through an agreed CEMP.

5.2.2 Decommissioning will involve the following:

- dismantling and removal of wind turbines and electrical equipment;
- restoration of the wind turbine areas, hardstands and access tracks; and
- dismantling and removal of the substation and BESS compounds.

5.3.2 Wind turbine components and electrical equipment will be dismantled and removed in a similar manner to their delivery and erection. The wind turbines will be split into sections which will then be transported from the Proposed Development by HGVs unless the components are sold on, in which case, they will be removed as AILs. Wind turbine components will be cut up off-site in controlled environments ready for reuse, recycling or appropriate disposal.

5.4.2 The removal of the top of the wind turbine foundation (down to approximately 1m) will be undertaken requiring an excavated trench around the upstand to provide a working area. Breakout of the top part of the upstand will be undertaken using an excavator mounted jack hammer. The cables will be cut level with the remaining concrete. Once the broken-out concrete has been removed, the area will be reinstated by backfilling with topsoil/peat.

5.5.2 The cables will be left in place to avoid unnecessary ground disturbance.

5.6.2 The CEMP will be updated as required to ensure best practice is adopted during decommissioning of the Proposed Development.

5.7.2 An assessment of the decommissioning of the Proposed Development has not been undertaken as part of the EIA as:

- the future baseline conditions (environmental and other developments) cannot be predicted accurately at this stage; and
- the proposals for refurbishment / decommissioning are not known at this stage.

3.6 Health and Safety

Construction Phase

6.1.2 The construction Site will be managed and operated in accordance with Health and Safety at Work etc. Act 1974 and comply with relevant Health and Safety Regulations, including:

- The Management of Health and Safety at Work Regulations 1999;
- Electricity Safety, Quality and Continuity Regulations 2002; and
- Construction (Design and Management) (CDM) Regulations 2015.

6.2.2 In awarding any civil, electrical or other contracts for the construction of the Proposed Development the appointed contractor is obligated by law to follow the CDM Regulations implemented by the Health and Safety Executive (HSE). These are based on standard procedures that are adapted to take account of all Site specific requirements. The CDM Regulations require due consideration be given to construction workers and the public, with risk assessments and method statements created to cover all risks identified including access rights across the Site.

6.3.2 The applicant will appoint a Principal Designer to ensure all the CDM Regulations are correctly implemented, and to compile a Health and Safety File, which would be used in the operational phase of the Proposed Development. Additionally, a representative from the applicant would be at the Proposed Development during the construction period. This person would be empowered to halt any or all construction works if they believe correct health and safety procedures are not being adhered to. Similar procedures for Site workers, visitors and civilians must be drawn up for the operational phase. The HSE can investigate safety aspects of the Proposed Development and visit at any time if they have concerns.

Public Safety

6.4.2 Throughout the construction phase of the Proposed Development, the relevant statutory requirements would be adhered to. All potentially hazardous areas would be fenced off and all unattended machinery will be stored in the temporary construction compound or immobilised to prevent unauthorised use. In addition, signage will be placed at each possible entrance to the Site and in areas where there may be further danger, for example around open borrow pits.

6.5.2 Throughout construction, measures to manage diversion routes would be agreed with the relevant authorities. The diversion routes would be clearly marked and for safety reasons would direct the user away from any areas of construction. It is proposed that further details would be provided in an Outdoor Access Management Plan post consent.

6.6.2 Although members of the public have the right to roam land in Scotland under the Land Reform (Scotland) Act 2003 there will be restricted access around the Proposed Development during the construction phase for health and safety purposes.

Operational Phase

6.7.2 Wind farms have a proven track record for safety. A very small number of wind turbines have been known to suffer mechanical damage through lightning strikes or mechanical failure. Experience on operational wind farms has shown that allowing the public to access an operating wind farm does not lead to a compromise with respect to safety issues.

6.8.2 Companies supplying products and services to the wind energy industry operate to a series of international, European and British standards. A set of product standards for wind energy equipment has been developed by the International Electrotechnical Commission - IEC 16400. There are a number of British Standards that correspond to it, for example; BS EN 61400-1 ed3.0: 2005 “Wind turbines – Part 1: Design requirements”.

6.9.2 The applicant will commit to installing wind turbines and components that meet BS EN 61400-1 ed3.0.

6.10.2 Public access to the Site after construction has been completed would revert to the current state of access: private land that is subject to the right to roam under the Land Reform (Scotland) Act 2003.

6.11.2 The Applicant is intending to provide limited number of car parking spaces at the Site entrance to allow the general public use of unofficial access routes currently being promoted by local interest groups.

6.12.2 Appropriate warning, directional and identification signs would be installed on the wind turbines, transformers and at the substation and BESS compounds. Access to these would be restricted to wind farm personnel. At all times these facilities will be locked. Additionally, safety and/or directional signs will be placed at strategic points across the Site, particularly on the public routes to inform members of the public that they are entering a wind farm, to make them aware of potential hazards and provide direction for emergency services should the need arise. Any signage would be agreed with the relevant authorities prior to installation. It is proposed that further details would be provided in an Outdoor Access Management Plan post consent.

6.13.2 No resulting safety risks are expected as a result of public access to the Proposed Development. Wind turbine models being considered for the Site would operate automatically and have sensors to detect any instabilities or unsafe operation during high wind speeds. Should sensors placed within the nacelle and tower of the wind turbine detect any other malfunction in operation or should wind speeds increase over maximum operational thresholds, the brakes would be automatically applied in order to rapidly shut the wind turbine down.

6.14.2 The design of the Proposed Development has taken into account the possibility of ice throw occurring and wind turbines have been sited in locations to ensure that the rotor blades do not oversail any public roads to minimise the risk from ice fall. To further minimise the risk public notices will be displayed at new and existing access points to the Site, alerting members of the public and staff accessing the Site of the possible risk of ice throw under certain weather conditions.

6.15.2 If the cause of the shutdown was high wind speeds, then the wind turbine would automatically begin operation once the average wind speed reduced to within operational levels. Under other causes of shutdown, e.g. through malfunction, the wind turbine would remain shut down and in a safe condition (i.e. commonly with the blades orientated 90° to the wind direction) until restarted by wind farm personnel following satisfactory investigation. This procedure ensures safe operation of wind turbines to protect members of the public walking, cycling or riding past wind turbines during the operational phase. In addition, the vibrometers in the nacelles would detect rotor imbalance in blades caused by icing and the wind turbine's control and monitoring system would shut the wind turbines down under these conditions. The wind turbines are also equipped with lightning protection equipment so that strikes would be conducted from the nacelle down the tower into the earth.

3.7 Community Benefit

7.1.2 This section presents a brief summary of the proposed community benefits that would be implemented should the Proposed Development gain consent. Further information on the Proposed Development's socio-economics impacts can be found in the Economic and Community Impact Report, submitted alongside this EIA Report.

Community Benefits Package

7.2.2 If consented, the Proposed Development will deliver a tailored community benefits package worth £5,000 per MW (or equivalent) of installed capacity per annum, that is aligned with the priorities of the community. This process has involved feedback from the community and community groups who have engaged with the Applicant during the pre-application consultation process. Based on a total installed capacity of 187.2 MW, the Proposed Development could generate up to £936,000 per annum towards the community benefits package.

7.3.2 A Local Electricity Discount Scheme (LEDS) is being proposed as part of the community benefits package to deliver direct and tangible benefits to people living and working closest to the Proposed Development in the form of an annual discount to electricity bills.

Potential for Shared Ownership

7.4.2 The Applicant is also interested to understand whether there is any appetite from the community in exploring the potential for shared ownership of the Proposed Development, in line with Scottish Government's aspirations on community ownership[3].

3.8 Conclusion

8.1.2 This chapter has set out a description of the Proposed Development and provided details of the activities that would be undertaken throughout the construction, operation and decommissioning phases of the Proposed Development.

8.2.2 There is sufficient detail to provide consultees with a reasonable understanding of the Proposed Development and to assess its likely significant environmental effects. Further construction details will be provided in the CEMP, which will be submitted for approval prior to the construction of the Proposed Development.

[3] Local Energy Scotland is the independent body that manages the Scottish Government's Community and Renewable Energy Scheme (CARES). https://localenergy.scot/hub/shared-ownership/.