FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) FOR THE PROPOSED COOM GREEN ENERGY PARK GRID CONNECTION

VOLUME 2 – MAIN EIAR

CHAPTER 2 – DEVELOPMENT DESCRIPTION

Prepared for:

Coom Green Energy Park Limited

coom green energy

Date: **April 2026**

Document No:

P24308-FT-EGN-XX-RP-EN-0001

Core House, Pouladuff Road, Cork, T12 D773, Ireland

T: +353 21 496 4133 | E: info@ftco.ie

CORK | DUBLIN | CARLOW

www.fehilytimoney.ie

TABLE OF CONTENTS

LIST OF FIGURES (VOLUME 4)

LIST OF TABLES

LIST OF APPENDICES (VOLUME 3)

2. DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) describes the location and components of the Proposed Development. It also provides details on the construction, operation and decommissioning of the Proposed Development in compliance with the EIA Directive ((Directive 2011/92 EU on the assessment of the effects of certain public and private projects on the environment (as amended)). This forms the basis of the assessments presented within the EIAR.

This chapter of the EIAR is supported by Figures in Volume 4, planning drawings accompanying the planning application and the following appendix documents provided in Volume 3 of this EIAR:

- Appendix 2.1: TLI Construction Methodology Report;
- Appendix 2.2: Construction and Environmental Management Plan (CEMP);
- Appendix 2.3: Schedule of Planning Application Drawings;
- Appendix 1.3: List of Developments for Cumulative Assessment.

A glossary of common terms and acronyms used throughout this EIAR can be found in Appendix 1.2 of Chapter 1 – Introduction which is contained in Volume 3.

The Proposed Development assessed in this EIAR comprises the following elements:

- A 110 kV Underground Cable (UGC) Grid Connection Route from the permitted onsite substation at Lackendarragh to the existing Barrymore 110 kV substation located near Rathcormac, Co. Cork (also referred to herein as the ***'110 kV GCR'***);
- A 33kV Underground Cable (UGC) Collector Network Route between the western and eastern arrays of the permitted Coom Green Energy Park (CGEP) development (also referred to herein as the ***'33 kV CNR'***);
- A 110kV onsite substation at Lackendarragh, in line with the latest Eirgrid functional specifications (also referred to herein as ***'110 kV Substation'***).

The location and general layout of the Proposed Development is shown in Figure 2.1 and Figure 2.2 Volume 4 of the EIAR, respectively.

2.2 Overview of the Proposed Development

CGEP is a permitted development (ACP Ref: 308885-20) consisting of a 22-turbine wind farm, 110 kV substation, 20 no. battery energy storage containers and all associated ancillary works. Two 110 kV substations were permitted as part of the CGEP, one in the townland of Mullenaboree and one in the townland of Lackendarragh North. However, only the substation located in Lackendarragh North will be constructed. The permitted 110 kV substation at Mullenaboree shall not be constructed if the Proposed Development receives planning consent, as it will no longer be required.

Presented hereunder are the elements of the Proposed Development for which development consent is being sought and all other associated project components are subject to EIA but for which development consent is not being sought within the current application.

2.2.1 Elements of the Proposed Development for which Development Consent is Being Sought

The Proposed Development for which consent is being sought will consist of the following:

- Installation of 13.9 km of permanent high voltage (110 kV) and communication cabling underground between the proposed onsite 110 kV electrical substation at Lackendarragh North and the existing Barrymore 110 kV substation and all associated ancillary works.
- Installation of approximately 15.8 km of underground medium voltage (33kV) electrical and communication cabling between the western and eastern arrays of the permitted CGEP and all associated ancillary works.
- A permanent onsite 110 kV electrical substation at Lackendarragh North and associated compound to meet current transmission network specifications;
- All associated infrastructure, services and site works including excavation, earthworks, soil management, drainage and sediment control to facilitate the works;
- Forestry felling of 17.8 ha to facilitate construction and operation of the Proposed Development.

2.3 Proposed Development Location

The permitted CGEP is located approximately 12 km to the southeast of Mallow and approximately 13 km west of Fermoy in County Cork.

The 110kV GCR traverses the following townlands: Lackendarragh North, Moanlahan, Knockauncorrin, Mullentaura, Glanakip, Rathcormack-mountain, Coolnakilla, Knockananig, Coolmucky, Ballynahina, Corrin, Farran North, Farran South, Kill-Saint-Anne-North, Co. Cork.

The 33kV CNR traverses the following townlands: Coom (Hudson), Mullenaboree, Knockaunalour, Knocknacaheragh, Chimneyfield, Killeagh, Glannasack, Knockdoorty and Lackendarragh North, Co. Cork.

The 110kV onsite substation is located at Lackendarragh North, Co. Cork.

2.3.1 Proposed Development Boundary

The Proposed Development application area (i.e. the red line boundary depicting the land to which the application relates, which includes the 110 kV GCR, 33kV CNR and the 110kV onsite substation) comprises a land area of 57.6 ha (0.58 km^2) and is shown on Figure 2.1 and planning application drawings.

The works area associated with the 110 UGC and 33 kV CNR shall take place within an approximate 20 m corridor through private lands.

All works associated with the 110 kV UGC and 33 kV CNR within public roads shall be carried out within the boundaries of the public road corridor as shown on planning application drawings.

The development boundary associated with the 110 kV substation at Lackendarragh North is not proposing to change from that associated with the permitted CGEP development.

2.3.2 Existing Land Use and Site Context

The 110 kV GCR will consist entirely of underground cable and will connect the on-site substation to an existing 110kV substation at Barrymore, within the townland of Farran South near Rathcormac. The GCR will be ca. 13.9 km in length, with ca. 12.1 km to be constructed within the existing public road corridor and 1.8 km constructed within private lands with a land use comprising primarily existing commercial forestry track.

The 33 kV CNR is located in a predominantly agricultural area, with elevations within the site ranging from 190 m to 390 m above sea level. The landcover is classified as pastures, coniferous forest and transitional woodland scrub.

The Proposed Development is located in a sparsely populated rural context with the onsite 110kV substation located 600 m from the nearest residential property.

The Proposed Development is located within Hydrometric Area No. HA 18, Blackwater (Munster), of the Irish River Network System. It is situated in the Southwestern River Basin District (SWRBD).

The majority of the Proposed Development is underlain by till derived from Devonian Sandstones with limited areas of bedrock sub-crop or outcrop.

The Proposed Development will utilise the same site accesses as the consented CGEP development and is accessible from both the east and west via the N72 and N20 national roads respectively and local road network. Access from the east is via the M8 motorway and N72 national road, turning south from the east of the village of Ballyhooly, with the route then travelling along the local road network for approximately 9 km. Access to the site from the west is via the N20 national road and along the local road network for approximately 3.5 km to an existing Coillte forestry entrance which will be upgraded and utilised for the Proposed Development.

2.3.3 Landownership

Landownership associated with the Proposed Development is a combination of Coillte lands and private landholders. These landowners have consented to the application for the Proposed Development. Letters of consent accompany the planning application.

2.3.4 Developments in the Surrounding Area

Details of developments for consideration for cumulative assessment are presented in Appendix 1.3, Volume 3.

The permitted CGEP shall be assessed cumulatively with the Proposed Development as part of this EIAR.

2.4 Proposed Development Infrastructure

2.4.1 110 kV Underground Cable (UGC) Grid Connection Route (GCR)

The 110kV GCR (shown in Figure 2.2.1, Volume 4) is approximately 13.9 km in length and traverses in a western direction from the Barrymore 110kV substation to the Coom Green Energy Park (CGEP) 110kV substation utilising public road networks and permitted wind farm access tracks. No overhead lines are required for this connection.

There is approximately 1.8 km of the 110kV GCR within private lands, of which 1.5 km is within the consented CGEP site boundary, and an additional 12.1 km within public road.

For a detailed description of the construction methodologies associated with the Proposed Development, please refer to the TLI Construction Methodology Report contained in Appendix 2.1, Volume 3.

The 110kV GCR shall feature horizontal directional drilling (HDD) to cross the M8 Motorway. See Section 2.4.1.4 for further details of the M8 Motorway crossing. Details on watercourse crossings are summarised in Section 2.4.1.3 of this chapter.

Cabling works will involve the installation of ducting, joint bays, drainage and ancillary infrastructure and the subsequent running of cables along private lands and the existing road network. This will require delivery of plant and construction materials, followed by excavation, laying of cables and subsequent reinstatement of trenches.

2.4.1.1 Cable Ducts and Trenches

A minimum separation distance of 300 mm will be maintained with existing services. Usually, the new cables will be laid below existing services where possible.

The cable trench is typically 825mm wide by 1,315mm deep, with variations on this design to adapt to service crossings and watercourse crossings, etc. The ducts will be installed, the trench reinstated in accordance with landowner/ Cork County Council specification. Construction method statements and templates will be implemented to ensure that the underground HV ducting is installed in accordance with the correct requirements, materials, and specifications of ESBN and EirGrid.

Details of the cable and trench installation and construction methodologies are contained within the TLI Construction Methodology Report in EIAR Volume 3, Appendix 2.1 and the CEMP in Appendix 2.2, Volume 3.

It is expected that full road closures will be put in place to facilitate cabling works rather than partial road closures or stop/go systems. This will enable the works to be completed as quickly and as safely as possible, with minimal disruption time for residents of the area. These would be undertaken on a rolling basis with short sections closed for short periods before moving onto the next section. This is described in more detail in Chapter 12, Traffic and Transportation, and the TMP contained in Appendix 2.2, Volume 3.

The road will be reinstated in accordance with the Guidelines for Managing Openings in Public Roads and to a standard agreed with Cork County Council. Road opening licences supported by a detailed Traffic Management Plan (TMP) will be secured prior to works and will be followed to maintain public access along the route during the trenching and reinstatement works.

Refer to the TMP for further detail and the CEMP (Appendix 2.2, Volume 3), and the TLI Construction Methodology Report (Appendix 2.1, Volume 3) for detailed construction methodologies.

2.4.1.2 110kV Joint Bays

There are 20 no. joint bays along the 110kV GCR. Of these, 17 no. shall be located in public roads, and 3 no. shall be located on private lands.

Joint bays are pre-cast concrete chambers (typically 6m x 2.5m x 2.05m in size) where individual lengths of cables are joined to form one continuous cable. They are to be installed below finished ground level, approximately every 650m - 850m along the cable route to facilitate the jointing of the 110 kV GCR.

Joint Bays will be located in the non-wheel bearing strip of roadways where possible, however given the narrow profile of local roads this may not always be possible.

The locations of joint bays along the 110 kV GCR are shown in Figure 2.2.1, Volume 4, and planning application drawings.

Further details on joint bay construction methodologies can be found in the TLI Construction Methodology Report in EIAR Volume 3.

2.4.1.3 Water Crossings

The 110 kV GCR will cross an EPA-mapped WFD watercourse at one location, and the 33 kV CNR will cross EPA-mapped WFD watercourses at three locations. In addition to these crossings of WFD watercourses, there are 63 no. minor watercourse crossings (small streams and man-made drains) along the proposed route. For details on all watercourse crossings, please refer to Chapter 11 - Hydrology and Water Quality and see Figure 11.4, Volume 4; for the crossing locations.

Horizontal directional drilling (HDD) will be employed at several locations along the 110kV GCR as part of the Proposed Development.

Crossing existing culverts will be implemented using open trenching with either an undercrossing or an overcrossing, depending on the depth of the culvert.

The proposed crossing designs have been designed in line with Inland Fisheries Ireland (IFI) requirements for salmonid watercourses as included in their 2016 'Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (IFI, 2016)' and TII 'Guidelines for the Crossing of Watercourses During the Construction of Road Schemes (NRA, 2008)'. Details of proposed crossing structures are presented in the accompanying planning application drawings.

The watercourse crossing construction methodologies can be found in the TLI Construction Methodology Report in EIAR Volume 3, Appendix 2.1 and the CEMP in Appendix 2.2, Volume 3.

2.4.1.4 Crossing of the M8 Motorway

The proposed 110kV GCR will cross the M8 Cork to Fermoy Motorway at Corrin View Estate, south of Junction 15, as shown on the accompanying planning application drawings. For the schedule of planning application drawings, refer to Appendix 2.3, Volume 3 of the EIAR. Horizontal directional drilling (HDD) will be used to traverse beneath both carriageways of the M8.

The locations of the launch and reception pits will be adequately spaced from the carriageway to ensure the bore is at such depth as not to conflict with the drainage or surface of the motorway or associated embankments.

There is sufficient room available to accommodate the necessary equipment. The cables will be laid at sufficient depth below the motorway to stay below the motorway drainage and without impacting on the motorway foundations.

The locations of start and finish points for the HDD have been identified following desktop assessments, site visits and technical consultation.

2.4.2 33 kV Underground Cable (UGC) Collector Network Route (CNR)

The 33kV CNR (shown in Figure 2.2.2 Volume 4) is approximately 15.8 km in length and traverses in an eastern direction from the western wind parcel of the permitted Coom Green Energy Park (CGEP) to the permitted substation at Lackendarragh North using public roads, commercial Coillte forestry lands and private agricultural lands.

Of the total 15.8 km 33 kV CNR length, 14.7 km is located within third-party lands and 1.1 km within public road. Approximately 7.1 km of the CNR is located outside the permitted CGEP development boundary. Of this, 1.1 km is location in public roads with 6 km located in private lands.

For a detailed description of the proposed 33kV CNR, please refer to the TLI Construction Methodology Report in Appendix 2.1, Volume 3.

Connection works will involve the installation of ducting, joint bays, drainage and ancillary infrastructure and the subsequent running of cables along private lands and the existing road network. This will require delivery of plant and construction materials, followed by excavation, laying of cables and subsequent reinstatement of trenches.

The 33kV CNR is shown on Figure 2.2.2, Volume 4 and on the accompanying planning application drawings. For the schedule of planning application drawings, refer to Appendix 2.3, Volume 3 of the EIAR. .

2.4.2.1 Cable Ducts and Trenches

The 33kV CNR will transmit electricity via a three-phase supply, using three individual conductors (or cables) per circuit. Each conductor will be installed in a separate duct, typically laid in a trefoil formation, though flat formation may be used where required.

The cable trench is typically 450 mm wide and 1250 mm deep. In areas requiring a triple circuit, the trench will have a width of 1550 mm and depth of 1250 mm. Trench dimensions may vary at watercourse and service crossings.

Duct installation and trench reinstatement will follow the requirements of Cork County Council when within public roads, and landowner specifications on private land.

Details of the cable and trench installation and construction methodologies are contained within the TLI Construction Methodology Report in Appendix 2.1, Volume 3.

2.4.2.2 33kV Joint Slabs

There are 23 no. joint slabs along the proposed 33kV CNR.

Joints slabs are to be installed approximately every 1,000m - 1,200m along the 33kV CNR to facilitate the jointing of 2 no. lengths of cabling. Joint slabs are typically 2.5m x 1.575m x 0.2m concrete slabs installed below finished ground level and will be located in the non-wheel bearing strip of roadways / access tracks where possible.

The locations of all joint slabs along the 33kV CNR are shown on the accompanying planning application drawings. For the schedule of planning application drawings, refer to Appendix 2.3, Volume 3 of the EIAR.

Further details on joint slab construction methodologies can be found in the TLI Construction Methodology Report in Appendix 2.1, Volume 3.

2.4.2.3 Water Crossings

The 33 kV CNR traverses 2 no. EPA mapped WFD Watercourses: the COOM_010, and the BRIDE (BLACKWATER)_010. The COOM_010 shall be traversed by HDD at 2 no. locations; one of which is located within the permitted CGEP development site where the internal wind farm access track crosses the river. The BRIDE (BLACKWATER)_010 shall be crossed by placing the proposed cable ducts in an existing stone arched bridge at Chimneyfield. The latter crossing also traverses the associated Blackwater River (Cork/Waterford) SAC. The proposed crossing methods avoid in-stream works within the watercourses or SAC.

Details of other water and service crossings are contained in the TLI Construction Methodology Report in Appendix 2.1, Volume 3, and Chapter 10.

Details of water crossing methodologies can be found in the TLI Construction Methodology Report in Appendix 2.1, Volume 3 and the CEMP in EIAR Volume 3, Appendix 2.2.

2.4.3 110kV Substation

It is proposed to construct a 110kV onsite substation at Lackendarragh North, as shown in Figure 2.1, Volume 4 of the EIAR which will meet current EirGrid specifications.

The dimensions of the substation compound will be approximately 115 m x 145 m (16,571 m^2) and will include a 110kV substation control building and electrical components necessary to export the electricity generated from the CGEP wind farm to the national grid including a transformer compound and busbar compound.

The control building will include an Independent Power Producer (IPP) Medium Voltage (MV) switch room and grid operator control rooms, an office space and welfare facilities for staff during the operational phase of the wind farm.

The 110kV substation Eirgrid control building shall be single story with an area of approximately 450m^2. The IPP control building shall be single story with an area of approximately 300m^2.

The substation compounds will be surrounded by a ca. 2.6m high steel palisade fence and internal fences will also be provided to segregate different areas within the main substation compound.

Lighting will be required on site, and this will be provided by lighting poles located around the substation and exterior wall mounted lights on the control buildings.

Due to the nature of the Proposed Development and the low frequency use, drinking water will be provided via bottled supply if needed. Toilet facilities will include a low-flush toilet and low-flow wash basin, with minimal water demand. This water will be sourced through a rainwater harvesting system from the building roofs, eliminating the need for a potable water supply. Wastewater from the welfare facilities will not be treated on-site. Instead, it will be collected in a sealed underground storage tank and removed periodically by a licensed waste collector to an approved wastewater treatment facility. This approach is widely accepted for wind farm developments and has been endorsed by multiple Planning Authorities and An Coimisiún Pleanála. The storage tank will be equipped with an automated alarm system to provide advance notice when emptying is required. Full specifications of the alarm system will be submitted to the Planning Authority prior to the commencement of site works. The alarm will be integrated into the site's remote monitoring system, which continuously tracks data from turbines, wind measurement devices, and the substation 24 hours a day, 7 days a week. Only waste collectors with valid permits under the Waste Management (Collection Permit) Regulations, 2007 (as amended) will be authorised to transport wastewater from the site.

The substation compound will also contain external electrical and ancillary infrastructure including the following:

- Cable sealing ends;
- Surge arrestors;
- Cable disconnectors;
- Post insulators;
- Circuit breakers;
- Current and voltage transformers;
- Steel gantry's and cable chairs;
- Power transformers;
- Power quality compensation equipment;
- Concrete plinths and bunds;
- External lighting;
- Lightening protection masts;
- Telecommunications masts;
- Security cameras;
- Palisade fencing and gates.

The 110kV onsite substation compound is presented in the accompanying planning application drawings. For the schedule of planning application drawings, refer to Appendix 2.3, Volume 3 of the EIAR.

For more information on the onsite 110kV substation, please refer to the TLI Construction Methodology Report in Appendix 2.1, Volume 3 of the EIAR.

2.4.4 Construction Activities

Subject to Planning Permission being granted for the Proposed Development, tree felling, upgrading of existing site tracks and the provision of new site tracks will precede all other activities. Drainage infrastructure will be constructed in parallel with the access track construction. This will be followed by the construction of the onsite 110kV substation and 33kV CNR as well as the 110 kV GCR works. Construction methodologies are provided in the CEMP in Appendix 2.2, Volume 3 of the EIAR.

2.4.5 Construction Programme

The construction of the Proposed Development in its entirety is expected to take 12 months. The construction of the Proposed Development shall be carried out during the wider CGEP development construction programme which will be carried out over 18 - 24 months.

As described in the 2020 CGEP EIAR, there are a number of items which will be conducted in parallel, but the basis of the construction programme would involve site establishment, site access road and drainage construction, hardstanding construction and substation works, the grid connection works are likely to be done in parallel with the site works and the turbine installation works will be completed before commissioning and reinstatement and landscaping.

The proposed construction programme upon which assessments in the EIAR have been based is presented hereunder.

Table 2-1: Indicative Construction Programme

	Month											
Activity	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Mobilisation and site setup												
Site clearance and felling												
Onsite substation												
Grid connection works												
Private electrical network and commissioning												
Landscaping, reinstatement, demobilisation												

2.4.6 Hours of Construction

The hours of construction activity for the Proposed Development will be limited to avoid unsociable hours as per Section 6.3 (d) of BS 5228: Code of practice for noise and vibration control on construction and open sites, Part 1: Noise. Construction operations will generally be restricted to between 08:00 and 19:00 Monday to Friday and between 7:00 and 13:00 on Saturdays. However, to ensure that optimal use is made of fair-weather windows, or at critical periods within the programme, it could occasionally be necessary to work outside these hours. Any such out of hours working would be agreed in advance with the local planning authority. It should be noted that it may be necessary to commence turbine base concrete pours earlier due to time constraints incurred by the concrete curing process. Further details on working hours and restrictions of same are provided in the CEMP in Appendix 2.2, Volume 3 of the EIAR.

2.4.7 CEMP

A Construction and Environmental Management Plan (CEMP) is contained in Appendix 2.2, Volume 3 of the EIAR.

The CEMP sets out the key environmental management measures associated with the construction, operation and decommissioning of the Proposed Development, to ensure the environment is protected, and any potential impacts are minimised. The CEMP will be developed further at the construction stage, on the appointment of the main contractor to the Proposed Development to address the requirements of any relevant planning conditions, including any additional mitigation measures that are conditioned.

The CEMP document is divided into six sections:

- **Section 1:** Introduction provides details on the existing site and the Proposed Development.
- **Section 2:** Existing Site Environmental Conditions provides details of the main existing geotechnical, hydrological, ecological and archaeological conditions onsite. These conditions will be considered by the Contractor in the construction, operation and decommissioning of this Proposed Development and the prescribed measures complied with.
- **Section 3:** Overview of Construction Works, this section provides an overview of the construction works proposed and drainage and sediment controls to be installed.

- **Section 4:** Environmental Management Plan (EMP), this section outlines the main requirements of the EMP and outlines controls for the protection of the environment for example soil management, waste management, traffic management, site drainage management, site reinstatement & decommissioning, habitat and archaeology management etc.
- **Section 5:** Safety & Health Management Plan, this section defines the work practices, procedures and management responsibilities relating to the management of health and safety during the design, construction and operation of the Proposed Development.
- **Section 6:** Emergency Response Plan contains predetermined procedures to ensure the safety, health and welfare of everybody involved in the Proposed Development and to protect the environment during the construction phase of the Proposed Development.

2.4.8 Traffic Management

A Traffic Management Plan (TMP) will be adopted, in consultation with Cork County Council, to provide a safe environment for road users and construction workers. In the event permission is granted for the Proposed Development the TMP will be finalised following the appointment of the contractor for the main construction works to address the requirements of any relevant planning conditions, including any additional mitigation measures that are conditioned and will be submitted to the planning authority for agreement.

Traffic management and road signage will be in accordance with the Department of Transport: Traffic Signs Manual - Chapter 8: Temporary Traffic Measures and Signs for Road Works and in agreement with Cork County Council. All work on public roads will be subject to the approval of a road opening license application by Cork County Council.

Where road widths allow, the UGC installation works will allow for one side of the road to be open to traffic at all times by means of a 'Stop/Go' type traffic management system, where a minimum 2.5m roadway will be maintained at all times.

Where it is not possible to implement a 'Stop/Go' system a full road closure will be required. Temporary traffic signals will be implemented to allow road users safely pass through the works area by channelling them onto the open side of the road. Typically, the UGC will be installed in 100 - 150m sections (depending on ground conditions), and no more than 100m will be excavated without the majority of the previous section being reinstated. Where the construction requires the crossing of a road, works on one carriageway will be completed before the second carriageway is opened, to maintain traffic flows.

All construction vehicles will be parked within the works area so as not to cause additional obstruction or inconvenience to road users or residents. The traffic signals will be in place prior to the works commencing and will remain in place until after the works are completed. The public road will be checked regularly and maintained free of mud and debris. Road sweeping will be carried out as appropriate to ensure construction traffic does not adversely affect the local road condition.

For further information, please refer to the TMP which is appended to the Construction Environmental Management Plan (CEMP), included in Appendix 2.2, Volume 3.

2.4.9 Soil and Peat Management

Management of all excavated soils and peat will be carried out in accordance with the Soils Management Plan contained in the CEMP in Appendix 2.2, EIAR Volume 3.

2.4.10 Surface Water Management

Drainage measures required for the construction of the 110kV GCR, 33kV CNR and the onsite 110kV substation will incorporate Sustainable Drainage Systems (SuDS). This design approach ensures that existing drainage patterns will be maintained throughout the site.

The proposed drainage design is the primary mitigation measure for the protection of waterbodies, incorporating silt protection infrastructure and control measures to reduce the rate of surface water runoff from the Proposed Development.

The drainage system for the Proposed Development will be constructed alongside all access tracks, substation and the temporary construction compound. The drainage system for the existing tracks will largely be retained. Where the roads require widening, this will involve the re-location of existing roadside swales to allow for widening.

Further details on hydrology and drainage are contained in Chapter 11 - Hydrology and Water Quality, and the Surface Water Management Plan (SWMP) which is contained in the CEMP in Appendix 2.2 Volume 3.

2.4.11 Waste Management

A Waste Management Plan for the Proposed Development has been included in the CEMP, Volume 3, Appendix 2.2.

The Applicant, in conjunction with the appointed contractor, will prevent, reduce, reuse and recover as much of the waste generated on site as practicable and ensure the appropriate transport and disposal of residual waste to off-site licensed facilities. This is in line with the relevant National Waste Management Guidelines and the European Waste Management Hierarchy, as enshrined in the Waste Management Act 1996, as amended.

Any waste generated during the construction phase will be collected, source separated and stored in dedicated receptacles at the temporary construction compound. It will be the responsibility of the contractor for the main construction works (when appointed) to nominate a suitable site representative such as a Project Manager, Site Manager, or Site Engineer as Waste Manager who will have overall responsibility for the management of waste.

The locations of these facilities are identified in the CEMP in Appendix 2.2, Volume 3 of the EIAR.

2.4.12 Tree Felling

As outlined in Section 2.2.1, the total felling required for the Proposed Development is 17.8 ha. Of this, 10.2 ha of this is already accounted for within the felling area included in the permitted CGEP. The additional felling required arises from the 33kV CNR modifications and the new footprint of the 110kV onsite substation at Lackendarragh North. Conversely, certain areas previously identified for felling under the permitted CGEP are no longer required due to the updated 33kV CNR and the non-requirement of the Mullenaboree substation.

Overall, the combined felling required to accommodate both the Proposed Development and the permitted CGEP is 65.2 ha. This represents an additional 2.4 ha compared with the total felling previously calculated in the 2020 EIAR for the permitted CGEP.

2.4.13 Temporary Site Compounds

As part of the permitted CGEP, 3 no. temporary site compounds are to provide temporary facilities for construction personnel. Wheel wash facilities will be provided within the site near the site entrance point.

Facilities to be provided in the temporary site compounds will include the following:

- site offices, of Portacabin type construction;
- Portaloos;
- bottled water for potable supply;
- a water tanker to supply water used for other purposes;
- canteen facilities;
- material/non-fuel storage areas;
- employee parking;
- bunded fuel storage
- contractor lock-up facility;
- diesel generator;
- waste management areas.

Temporary facilities will be removed, and the lands reinstated on completion of the construction phase.

2.5 Operation

A 30-year operational permission is being sought for the connection of the permitted Coom Green Energy Park (CGEP) to the national grid.

The onsite 110kV substation and 110kV GCR will be taken in charge by ESBN / EirGrid upon completion of construction and shall be left in place forming part of the national electricity network.

The 110kV GCR and 33kV CNR will operate unmanned during the operational phase. Periodical maintenance may be required during the operational phase to inspect and or repair some of the cable routes.

2.6 Decommissioning

The 110kV GCR and onsite substation within Lackendarragh North and ancillary electrical equipment will form part of the national grid and will be left in situ.

The 33kV CNR that connects each turbine will be removed from the cable ducting. The cabling will be pulled from the cable duct using a mechanical winch which will extract the cable and re-roll it on to a cable drum. This will be undertaken at each of the joint bays/pull pits along the cable. The access track will be excavated using a mechanical excavator at each cable pulling pit location and will be fully re-instated once the cables are removed. The cable ducting will be left in-situ as it is considered the most environmentally prudent option, avoiding unnecessary excavation and soil disturbance for an underground element that is not visible.

It is proposed that all access tracks will be left in place. These will continue to be used for forestry and agriculture.

A detailed decommissioning plan will be agreed in advance of construction with Cork County Council.

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

www.fehilytimoney.ie