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

VOLUME 2 – MAIN EIAR

CHAPTER 6 - POPULATION AND HUMAN HEALTH

Prepared for:
Coom Green Energy Park Limited

coom green energy

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6. POPULATION AND HUMAN HEALTH

6.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) assess the likely indirect and direct significant effects of the Proposed Development on Population and Human Health. The chapter includes a description of the existing environment in respect of population and human health and considers the likely significant effects arising from the Proposed Development during construction, operation and decommissioning under the following elements:

- Population:
- Employment and Economic Activity;
- Land Use of Project Area;
- Recreation, Amenity and Tourism. and
- Human Health and Safety including the potential for the proposed development to cause accidents and/or natural disasters and the vulnerability of the proposed development to potential disaster/accidents.

The assessment presented in this chapter draws upon the findings of other EIAR chapters, such as Chapter 7 – Air Quality and Climate, Chapter 8 – Noise and Vibration, Chapter 10 – Soils, Geology and Hydrogeology, Chapter 11 – Hydrology and Water Quality, Chapter 12 – Materials Assets, Telecommunications, Traffic and Transportation, and Chapter 14 – Landscape and Visual Impact.

6.1.1 Characteristics of proposed development

A comprehensive description of the Proposed Development is included within EIAR Chapter 2 - Description of the Development.

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').***

Where potential significant effects have been identified, mitigation measures have been proposed. Residual effects are then considered which details potential effects following implementation of mitigation measures.

Decommissioning is described in Section 2.6 of Chapter 2 - Development Description. Decommissioning will be carried out for the 33kV CNR. The 110kV GCR and 110kV onsite substation within Lackendarragh North and ancillary electrical equipment will form part of the national grid and will be left in situ.

A do-nothing scenario (as described in Chapter 3 – Site Selection and Alternatives) is outlined, in line with requirements of the EIA Directive 2014 (As Amended) which states:

> *"The environmental impact assessment report to be provided by the developer for a project should include a description of …. an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge".*

The assessment details the likely evolution of the receiving environment in the future should the Proposed Development not be carried out.

6.1.2 Relevant Guidelines

This chapter has been prepared in accordance with the following guidelines:

- Environment Protection Agency, Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2022)
- Environment Protection Agency, Advice Notes for Preparing Environmental Impact Statements Draft (2015)
- Cork County Development Plan 2022-2028 (CCDP) 2022
- European Commission (EC), Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (EU, 2017)
- Institute of Public Health (IPH), Health Impact Assessment Guidance: A Manual (2021)
- (EUPHA) Human Health: Ensuring a High Level of Protection. A reference paper on addressing Human Health in Environmental Impact Assessment
- Health Impact Assessment in Planning (IEMA 2020)
- Healthy Ireland - A Framework for Improved Health and Wellbeing 2013 – 2025 (the Healthy Ireland Framework) (Department of Health 2019)
- Environmental Noise Guidelines for the European Region (WHO 2018)
- Environmental Impact Assessment of Projects. Guidance on the Preparation of the Environmental Impact Assessment Report (European Commission 2017)
- Health in Environmental Impact Assessment – A Primer for a Proportionate Approach (Cave et al. on behalf of Institute of Environmental Management and Assessment (IEMA)) (IEMA 2017).

6.1.3 Relevant Aims and Objectives Extracted from the Development Plans

This chapter follows these guidelines and will examine the relevant human health and population effects that have the potential to result from the Proposed Development as they relate to the relevant Study Area (Section 6.3). A review of the relevant aims and objectives associated with human health in the Cork County Development Plan 2022 - 2028. Further detail is provided on relevant policies and objectives at Chapter 4: Policy.

"Objective 'ET 13-2' - (a) Support Ireland's renewable energy commitments as outlined in Government Energy and Climate Change policies by facilitating the development of renewable energy sources such as wind, solar, geothermal, hydro and bio-energy and energy storage at suitable locations within the county where such development has satisfactorily demonstrated that it will not have adverse impacts on the surrounding environment (including water quality), landscape, biodiversity or amenities.

(b) Support and facilitate renewable energy proposals that bring about a direct socio-economic benefit to the local community. The Council will engage with local communities and stakeholders in energy and encourage developers to consult with local communities to identify how they can invest in/gain from significant renewable energy development."

6.2 Statement of authority

This chapter has been prepared by Mr. Cathal Creedon, and reviewed by Evan Rossiter and Jim Hughes, of Fehily Timoney and Company.

Cathal Creedon is a Project Planner who holds a BA in Geography and History and an MA in Planning and Sustainable Development from University College Cork. Cathal has 2 years' experience working on various renewable energy projects and is involved in the preparation of Environmental Impact Assessment Reports (EIARs).

Evan is a Senior Project Planner with a BSc in City Planning and Environmental Policy and a Masters in Regional and Urban Planning (MRUP) from University College Dublin. Evan has 4 years' experience and has prepared EIAR Chapters for a range of development types, including renewable energy developments, throughout Ireland.

This chapter has been reviewed by Jim Hughes. Jim holds a BA in Public Administration from the University of Limerick, an MSc in Town Planning from Queen's University Belfast and a Higher Diploma (H.Dip) in Environmental Impact Assessment from University College Dublin and has over 20 years of experience. Jim has led major Irish projects in the planning, environmental assessment and permitting disciplines including many wind farm developments.

6.3 Study Area

The permitted CGEP is located approximately 12 km to the southeast of Mallow and approximately 13 km west of Fermoy. As detailed above, the project is split into three key sections, as such the townlands associated with same are outlined in turn below:

- 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.

The study area incorporates the townlands of: Ballynahina, Chimneyfield, Coolmucky, Coolnakilla, Coom (Hudson), Corrin, Farran North, Farran South, Glanakip, Glannasack, Killeagh, Kill-Saint-Anne-North, Knockananig, Knockaunalour, Knockauncorrin, Knockdoorty. Knocknacaheragh, Lackendarragh North, Moanlahan, Mullenaboree, Mullentaura, and Rathcormack-mountain.

6.3.1 Defining the Study Area for analysis of the impact on Population and Human Health

Electoral Divisions (ED's)are the smallest legally defined administrative areas in the state. The EDsED's correlate to the townlands which the Proposed Development is located within, as defined above. However, as the statistical data from the Census (which is conducted by the Irish Government in conjunction with the Central Statistics Office) is presented in terms of ED rather than townlands, this approach has been adopted for this Chapter and all the sections outlined hereunder. This is considered best practice, and from the extensive professional experience of the EIAR team it is considered to be commonly used as part of the assessment on the human environment across Environmental Impact Assessment Reports as it provides the most reliable and accurate data pertaining to same.

6.3.2 Cumulative Effects

In relation to cumulative effects for Population and Human Health, the cumulation of effects with other existing approved and proposed project has been assessed. The cumulative impact assessment provides a baseline from which a full environmental assessment of the potential effects arising from the Proposed Development in combination with other plans and projects can be considered comprehensively. A search for proposed applications currently in the planning system (not yet decided), consented, and existing projects within 20 km of the Proposed Development was conducted to identify development that have the potential to give rise to cumulative effects with the 110 kV GCR, 110 kV substation and 33 kV CNR.

The geographic extent of the cumulative assessment has been considered on a case-by-case basis, in line with the Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Commission, 1999). However, a 20 km distance from the Site was considered a reasonable zone of influence for the purpose of assessing potential cumulative effects on population and human health considering the size and extent of the Proposed Development, the nature of the effects and the receiving environment of the wider area.

It is important to note that the population that may have the highest potential to experience effects arising from in particular the construction phase (possible effects of noise, dust, etc) of the Proposed Development will be those primarily living within a relatively short distance of the Proposed Development.

The 20 km radius from the proposed 110 kV and 33 kV infrastructure is considered relevant and representative of a robust Study Area for potential cumulative effects. While this distance is established as best practice for the zone of theoretical visibility for large-scale energy projects, it is also utilised here as a comprehensive Study Area for other potential cumulative interactions, including construction traffic, noise, water quality, and air quality. This 20km extent ensures that all existing, consented, and proposed developments within the wider receiving environment are captured to provide a full environmental baseline. It is considered in our professional experience that there is no potential for likely significant population and human health effects beyond this distance, given the nature and scale of the Proposed Development.

A final up-to-date planning search was conducted in January 2026 to identify significant projects within the identified zone of influence for the Site. This included a search for major infrastructural projects; large residential, renewable energy (including the consented Coom Green Energy Park (CGEP) which this Application seeks to connect to the National Grid) or commercial developments; proposed or consented development as well as an examination of relevant plans and policies for the area as detailed in EIAR Chapter 4 - Policy.

It is important to clarify the methodological approach regarding existing and operational developments. As these projects are already built and functioning within the receiving environment, their ongoing effects (such as current traffic volumes, visual presence, or background noise levels) are inherently captured within the existing baseline surveys and data presented throughout this EIAR. Consequently, while these operational projects were identified during the 20 km planning search, they are not assessed again as new cumulative impacts to avoid double-counting. Instead, the cumulative impact assessment focuses specifically on the potential interactive effects between the Proposed Development and other proposed or consented (but not yet operational) projects, such as the consented CGEP.

6.4 Consultation

Two pre-application consultation meetings were held with An Coimisiún Pleanála (formerly An Bord Pleanála), under Section 37B of the Planning and Development Act 2000, as amended. These meetings were conducted on the 24th of October 2024 and the 12th of June 2025 to determine if the Proposed Development is Strategic Infrastructure Development (SID) and to inform the assessment methodology.

Pre-Planning Consultation was carried out with key stakeholders, including Cork County Council, An Coimisiún Pleanála), Government Departments, Non-Governmental Organisations, aviation organisations, and local residents. Comments and feedback were incorporated into the Proposed Development design iterations and used to inform the assessments conducted in the EIAR. Further details on all Scoping Consultation and Community Engagement are provided in EIAR Chapter 5 – EIA Scoping & Consultation. While no formal written comments were received from statutory consultees during the Scoping Consultation specifically relating to Population and Human Health, Transport Infrastructure Ireland (TII) noted that their concerns regarding noise and national infrastructure should be addressed within Chapter 6: Population and Human Health.

The Applicant conducted extensive community engagement to inform local residents about the Proposed Development, the details of which are presented in Section 5.4 of Chapter 5 of this EIAR.

6.5 Methodology

This chapter of the EIAR has been completed in accordance with the guidance set out by the 'Environmental Protection Agency' (EPA), in particular, the 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' (EPA, May 2022), the Government of Ireland's Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August, 2018) and the European Commission's guidance document: Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report as per Directive 2011/92/EU as amended by 2014/52/EU. The determination of significance of impact is in line with the EPA Guidance (EPA 2022).

No difficulties were encountered or identified in drafting this chapter.

To ensure transparency and consistency in the assessment of potential environmental impacts, and in accordance with the EPA's Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' (EPA, May 2022), the following methodology has been applied:

Magnitude of Impact

Magnitude describes the scale, extent, and duration of the potential impact. It is assessed based on:

- High Magnitude – large-scale, long-term or irreversible impacts.
- Medium Magnitude – moderate, short- to medium-term impacts.
- Low Magnitude – minor, temporary, or reversible impacts.
- Negligible – imperceptible or no measurable change.

Describing the Significance of Effects

It is determined based on:

- Imperceptible - An effect capable of measurement but without significant consequences.
- Not Significant - An effect which causes noticeable changes in the character of the environment but without significant consequences.
- Slight Effects - An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
- Moderate Effects - An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
- Significant Effects - An effect which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the environment.
- Very Significant - An effect which, by its character, magnitude, duration or intensity, significantly alters most of a sensitive aspect of the environment.
- Profound Effects - An effect which obliterates sensitive characteristics.

Significance of Effects

The significance of an effect is determined by combining the sensitivity of the receptor with the magnitude of the impact. This interaction is illustrated in the matrix below. This matrix provides a structured and transparent approach to evaluating the significance of effects, ensuring that conclusions are evidence-based and consistent with EPA guidance.

Table 6-1: EPA Guidance Matrix

Existing Environment Sensitivity	Description of Effect			
	High	Medium	Low	Negligible
High	Profound	Very Significant	Significant	Moderate
Medium	Very Significant	Significant	Moderate	Slight
Low	Significant	Moderate	Slight	Not Significant / Imperceptible

6.5.1 Population

In accordance with best practice, demographic data has been sourced from the Central Statistics Office (CSO)'s Census of Ireland (2011 to 2022) records. A desktop review of online data relating to the demographic information relating to the State, County Cork and the 'Study Area' has been assessed to establish the existing demographic trends (www.cso.ie). For the purpose of this aspect of the assessment, the demographic analysis of the Study Area (identified in Figure 6.1 of Volume 4 of the EIAR), is defined in terms of Electoral Divisions (ED's) within which the 110 kV GCR, 110 kV substation and 33 kV CNR are contained. Therefore, for the purpose of this aspect of the assessment, there are three separate areas contained within the 'Study Area' which extend across the following 5 ED's, as follows:

- Carrig;
- Castlelyons
- Glenville;
- Kildinan;
- Rathcormack.

Eircode data (2025), Geodirectory data, and planning application lists sourced from Cork County Council, An Coimisiún Pleanála and the Department of Housing and Local Government's EIA Portal have been assessed to identify any commercial or residential receptors in proximity to the Proposed Development. These sources were assessed in 2025 Eircode and Geodirectory data provides locations (geographic coordinates) for registered addresses.

The data gathered has informed the consideration of impacts on the existing population within the immediate environs of the proposed development and allows for a comprehensive assessment of the potential effects on population trends which may occur during the construction, operational, and decommissioning phase of the proposed development.

6.5.2 Employment and Economic Activity

A socio-economic profile of the existing environment was established using live register data (2023 to 2026) and Census (2022) data to outline an employment profile of the area containing the Proposed Development. Peer reviewed research from the Institute for Sustainable Futures and the European Wind Energy Association (Rutovitz, J. and Harris, S (2015)), was referred to in order to estimate the employment which the Proposed Development has the potential to create through the construction, operation and decommissioning phases of the Project, and the impact this employment will have on the Study Area.

6.5.3 Land Use of Project Area

Land use in the area was examined to determine the likely indirect and direct significant effects on existing land use patterns which may arise because of the Proposed Development. Tailte Eireann (2023) was studied, and observations were carried out throughout the ground-proofing survey to determine land uses in the Study Area. The likely significant effect of the Proposed Development was then considered with regard to these land uses.

The Site is located wholly in the jurisdiction of Cork County Council. With regards to the 110 kV GCR, given the nature of the Proposed Development, which will consist entirely of underground cable and will connect the on-Site substation to an existing 110 kV substation at Barrymore, within the townland of Farran South near Rathcormac. The land use for the 110 kV GCR is dominated by the existing public road corridor and sections of existing commercial forestry tracks. The GCR which will be ca. 13.9 km in length, comprises UGC of ca. 12.1 km within the existing public road corridor and ca. 1.8 km constructed within private lands within primarily existing commercial forestry track. The associated on-site 110 kV substation is situated on a greenfield site where the currentland use is agriculture

The land use for the 33 kV CNR is dominated by agricultural areas/uses. Other landcover classifications include pastures, coniferous forest and transitional woodland scrub.

As the Proposed Development follows the existing public road corridor, for the most part, there is a linear pattern of one-off rural housing fronting onto this network with more nucleated settlement located around the village of Castlelyons where the proposed 110 kV GCR connects to. Furthermore, with regards to the off-road sections located in private land and the Proposed substation location these are located in a sparsely populated rural context, with the closest residential receptor being located c. 600 m from the Proposed 110kV Substation.

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.

6.5.4 Recreation, Amenity and Tourism

With regards to Recreation, Amenity and Tourism, Fáilte Ireland's '*EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects*' (2023) informed the methodology used in assessing potential impacts on Recreation, Amenity and Tourism with the assessment complying with this guidance provided. A profile of tourism in the region was established through examination of Fáilte Ireland Statistics in order to indicate the strength of Recreation, Amenity and Tourism in the surrounding region. Likely significant effects as a result of the Proposed Development were then considered in relation to the tourism profile, amenity and recreation facilities and attractions of the area around Lackendarragh, Rathcormack, and the wider hinterland within County Cork.

6.5.5 Human Health & Safety

Potential impacts to human health as described throughout this EIAR are detailed in this Chapter, including potential impacts on air quality, noise and traffic and potential impacts on human safety including potential for flood risk and slope failure. The assessment on human health and safety has regard to the *Environmental Protection Agency's* (EPA US) Human Health Risk Assessment process[1] which is a procedure for identifying the nature and magnitude of risks to human health over the lifetime of a project. The risk assessment for the Proposed Development includes a review of published literature on the effects of wind energy developments and construction activities on human health. CSO data and Department of Health (2024), *Health in Ireland – Key Trends 2024*, were examined to establish a baseline health profile of the Study Area. Criteria of potential impacts on human health was extracted from this literature in order to assess potential effects on human health as a result of the Proposed Development.

A desktop examination of Tailte Eireann (2024) resources to identify potential hazardous land uses in the Study Area was carried out and vulnerability of the project to natural disaster was assessed through a desktop geographical study and literature review. The assessment was further informed by field surveys and slope stability assessment which were completed as part of the EIA process.

6.6 Existing Environment

6.6.1 Population

This section provides an overview of the population for the Study Area within County Cork and the State between the national 2016 Census and the 2022 Census, to create a baseline demographic profile of the receiving environment and to identify potential impacts on demographic trends arising as a result of the Proposed Development.

The Study Area for the purpose of assessing population has been chosen based on Electoral Divisions (ED's) within which the Proposed Development is located as set out in Table 6-2 below.

Table 6-2: Electoral Division Associated with the Study Area

Electoral Division of the Study Area (2022)
Carrig;
Castlelyons
Glenville;
Kildinan; and
Rathcormack.

6.6.1.1 Population Trends

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

1 https://www.epa.gov/risk/conducting-human-health-risk-assessment

The 110KV GCR, 110kV Substation and 33kV CNR are located within the townlands of Ballynahina, Chimneyfield, Coolmucky, Coolnakilla, Coom (Hudson), Corrin, Farran North, Farran South, Glanakip, Glannasack, Killeagh, Kill-Saint-Anne-North, Knockananig, Knockaunalour, Knockauncorrin, Knockdoorty. Knocknacaheragh, Lackendarragh North, Moanlahan, Mullenaboree, Mullentaura, and Rathcormack-mountain. The area is predominantly rural in character consisting of one-off houses focused on the local road network (along which the 110 kV GCR runs). According to Eircode data reviewed in February 2026, there are 934 residential receptors/properties within 2km of the Proposed Development. Figure 6.2 within Volume 4 of this EIAR, illustrates the residential receptors within the vicinity of the Proposed Development according to Eircode and Geodirectory data (February 2026). This information is supported by the ground proofing survey and planning application search.

Population statistics for the State, County Cork and the 'Population Study Area' (ED's) associated with the Site are shown in Table 6-3 below.

Table 6-3: Population Study Area 2016-2022

State		County	Development Site
Year	**Total**	**County Cork**	**110kv GCR, 110kV Substation and 33kV CNR ED's**
2016	4,761,865	542,868	4,949
2022	5,149,139	584,156	5,401
2016-2022 (%)	+8.1%	+7.6%	+9.1%

The data presented in Table 6-3 above, demonstrates that the state population has increased by 8.1%, from 4,761,865 persons in 2016, to 5,149,139 by 2022. This is an upward continuation of the trend in national population which has been observed since the previous census in 2011, which showed 4,588,252 persons, an increase of 12.04%.

At a county level, in the 2016 Census, the total population of County Cork was 542,868 persons. This showed a slight increase from the previous census in 2011, which showed 519,032 persons reside in County Cork. However, according to the 2022 Census, the total population of County Cork was 584,156 persons, reflecting a 7.7% increase since 2016, and an 8% rise since the 2011 Census.

Of the ED's associated with the Site, Rathcormack had the largest population in 2022 with a population of 2,643 persons. This represents an increase of c. 10.72% from the previous population of 2,387 persons recorded in the 2016 census. A summary of the populations of the other 4 ED's are outlined in turn below.

- In the census of 2022, the Castlelyons ED showed a population of 1,202 persons, representing an increase of 6.94% between 2016 (1,124 persons) and 2022.
- In the census of 2022, the Kildinan ED showed a population of 681 persons representing an increase of 12.56% between 2016 (605 persons) and 2022.
- In the both the census of 2022 and 2016, the Carrig ED area showed a population of 159 persons.
- In the census of 2022, the Glenville ED area showed a population of 716 persons representing an increase of 6.23% between 2016 (674 persons) and 2022.

The population data across the studied Electoral Divisions (EDs) reveals a varied growth pattern that largely correlates with proximity to established infrastructure and regional employment hubs. Rathcormack exhibited the most significant growth at 10.72% respectively, notably exceeding both the State (+8.1%) and County Cork (+7.7%) growth averages. This upward trend is likely influenced by their accessibility and appeal as residential locations for those commuting to larger urban centres. Conversely, Carrig remained entirely stagnant with 0.00% growth, suggesting this area may face geographical or infrastructural constraints to those seen in more isolated rural uplands.

Overall, the combined data for the Proposed Development Site EDs demonstrates a robust demographic trajectory. While some individual EDs—such as Glenville (+6.23%)—fall slightly below the national growth rate, the localised average shows an upward trend. . The expansion in areas like Castlelyons (+6.94%) reflects a steady demand for housing and services within this long-established settlement. Much like the regional trends observed in previous census cycles, the varying growth rates across these EDs underscore a shift toward settlements that offer better integration with the wider transport network and proximity to the primary employment opportunities of the Cork region.

Please refer to Figure 6-2 - Electoral Divisions within Volume 4 of the EIAR, which shows the ED's in the area.

6.6.2 Socio-Economics, Employment and Economic Activity

This section provides a comprehensive overview of the socio-economic, employment and economic activity associated with the Study Area, which provides an understanding of the overall socio-economic profile of the receiving environment.

6.6.2.1 Employment and Economic Status

Live register data, accessed in February 2026 (Last updated in August 2025 and available through (https://data.cso.ie), provides information relating to the number of people registering for Jobseekers Benefit, Jobseekers Allowance, or for various other statutory entitlements. The figure is useful to gauge unemployment estimations for an area, however, it is noted that the Live Register data includes part-time workers (working up to three days per week), seasonal workers and casual workers who are entitled to Jobseekers Benefit or Jobseekers Allowance and therefore, cannot be relied upon entirely for conclusive employment data. Live register data is presented below in Table 6-6 for the State and County Cork.

In order to obtain the percentage of those unemployed in each month, a percentage of those on live register is taken from the total census 2022 figures for those aged 15-64. The figures are derived from reviewing the census returns showing those who are able to work aged 15+, those who are out of full-time education and not performing duties that prevent them from working.

In the 2022 census, there were a total of 2,531,099 persons registered in the labour force in the State. However it should be noted thatthere was a significant increase in unemployment throughout the country due to the COVID-19 pandemic, The the effects of this have largely receded.

Table 6-4, further below, outlines the percentage of the total population of the State, county and the 5 no. ED’s containing the Proposed Development, focusing on residents who are aged 15+, and who were not in the labour force such as those in education or retired.

Table 6-4: Total Population aged 15+ in County Cork and the State(2022)

Area	Total Population Ages 15+ 2022
State	3,065,070
Cork	470,489

Table 6-5: Population aged 15+ within the State, County and Proposed Development Site

	Status	State	Cork City and County	Proposed Development - ED's
% of Population aged 15+, which are:	At Work	61.2%	56.20%	62.80%
	First time job seeker	91.7%	15.69%	0.50%
	Unemployed	1.4%	11.56%	2.52%
	Student	7.0%	6.89%	11.32%
	Home duties	38.8%	40.6%	8.48%
	Retired	28.6%	28.0%	10.30%
	Unable to work	17.0%	15.7%	3.61%
	Other	41.0%	43.8%	0.47%

As shown above, the principal employment status in 2022 across the State, County and the Proposed Developments Sites ED's is 'at work', and the percentage of the population spread across the employment categories (status) generally aligns across the State, County and Study Area.

Table 6-6: Live Register Data for Cork and the State between Jan 2023 and Jan 2026

	Jan 2026	Jan 2025	Jan 2024	Jan 2023
State	170,674	165,235	177,264	184,180
Cork	13,813	13,437	14,319	15,360

6.6.3 Land Use

The Proposed Development is situated within a lowland site approximately 12 km southeast of Mallow and 13 km west of Fermoy, County Cork. The majority of the study area traverses a rural landscape characterised by a mix of private lands and public road corridors. The 33 kV CNR and 110 kV GCR routes occupy an application area of 57.6 ha, consisting primarily of private lands within the permitted Coom Green Energy Park (CGEP) and approximately 12.1 km of the public road network. The remainder of the site involves 17.8 ha of commercial forestry felling to facilitate the construction of the onsite substation and cabling infrastructure. The rural landscape surrounding the grid connection is dominated by agricultural land and is relatively sparsely populated. . Residential properties and settlements in the vicinity of the 110 kV GCR include townlands such as Lackendarragh North, Rathcormack-mountain, and Ballynahina. Access to local houses, farms, and businesses will be maintained at all times during any road closures associated with the grid connection works. Full road closures on a rolling basis are expected for short sections during trenching to minimise disruption to residents.

The Site is situated predominantly within the Glenville Groundwater Body (GWB), with the eastern extremity traversing the Tallow GWB. These waterbodies are classified as having 'Good' status in terms of quality and quantity under the Water Framework Directive this is outlined in Chapter 10 - Soils, Geology and Hydrogeology. While there are no Public Water Supplies (PWS) or Group Water Schemes (GWS) within the Site Boundary, several schemes such as the Coolroe (Fermoy) PWS and Glenville GWS are located in the vicinity. There are 5 no. groundwater wells recorded within 1 km of the Proposed Development

Furthermore, there are no Public Supply Source Protection Areas within the Site Boundary, although 4 no. Source Protection Areas exist within the wider region, including Carrignavar and Grenagh.

As described in EIAR Chapter 10: Soils, Geology and Hydrogeology, the Site is characterised by the presence of locally and regionally important bedrock aquifers. The underlying geology at the eastern extent includes the Waulsortian Formation, which is prone to karstification, although no karst features are recorded within the Site Boundary. The Quaternary deposits across the study area largely consist of sandstone and shale till.

There are no recorded karst features within the Proposed Development, with the nearest being Killavull Cave located approximately 8 km to the northwest. The 110 kV GCR is approximately 13.9 km in length and connects the proposed onsite substation at Lackendarragh North to the existing Barrymore 110 kV substation. The cumulative effects on Population and Human Health with the adjacent consented Castlelyons Solar Farm and the consented CGEP development have been considered and are not expected to result in significant adverse effects on the receiving environment.

The delivery of plant and construction materials will be confined to the public road corridor and permitted access tracks, except where specific cabling works occur in private lands. Road opening licenses supported by a detailed Traffic Management Plan (TMP) will be secured prior to the commencement of works to maintain public access. Land use associated with the private land sections of the grid connection is primarily agricultural and forestry. The 110 kV GCR involves a crossing of the M8 Motorway, which is the primary arterial route connecting Cork to Dublin. This crossing will be achieved using Horizontal Directional Drilling (HDD) to avoid direct impacts on the motorway infrastructure.

Refer to Chapter 12 for further information on traffic and associated temporary management works.

6.6.4 Recreation, Amenity and Tourism

This section provides an overview of the existing recreation, amenity, and tourism value for the Study Area within County Cork. Tourism is a major contributor to the regional economy of North and Mid-Cork and represents a significant source of full-time and seasonal employment. The preparation of this section complied with Fáilte Ireland's 'Guidelines on the Treatment of Tourism in an Environmental Impact Assessment Report' (Fáilte Ireland, 2011).

Consultation has taken place with local stakeholders, as detailed in EIAR Chapter 5 - Scoping and Consultation of this EIAR, to understand potential effects on recreation and amenity in the townlands of Lackendarragh North, Ballynahina, Rathcormack-mountain, and the wider hinterland of the Coom Green Energy Park.

The latest available statistics from Fáilte Ireland for overseas tourism (2024) indicate that overseas and Northern Ireland tourist expenditure in the Republic was an estimated €6.6 billion, with a further €1.5 billion spent on fares to Irish carriers. Domestic tourism expenditure amounted to €3.6 billion, making tourism a €12 billion industry nationally. Every €1m of tourist expenditure helps to support 20 employees in tourism industries, with approximately 29 cents generated in tax per tourist, with Fáilte Ireland estimating between €3 billion was accrued by the Government through taxation of tourism in 2024.

The Proposed Development is primarily located within public road corridors and private agricultural/forestry lands, which are not identified as primary tourist destinations. However, the study area is located within the wider rural landscape of mid-county Cork, approximately 12 km southeast of Mallow and 13 km west of Fermoy.

6.6.4.1 Community Facilities & Services

Community facilities and services in proximity to the Proposed Development are centred on the towns and villages in the area. The closest settlement is the village of Castlelyons, which is located approximately 1.6km to the east of the Site. This village offers a range of local amenities including a primary school, post office, playground, and community centre. Sports facilities are well-represented by a GAA club, pitch and putt course, and various walking routes that take in local heritage sites such as the Abbey and Castle ruins.

The next closest settlement is Fermoy town, situated c. 2.5 km north of the Site. Fermoy is a major regional hub offering an extensive range of amenities including supermarkets, retail outlets, cafes, and restaurants. The town is a prominent centre for inland fishing on the River Blackwater and features a leisure centre, public park, and several schools. Notably, Fermoy Golf Club is located approximately c. 50 m from the Site Boundary.

Rathcormac village is located c. 2.7km south of the Site. Facilities within the village include a primary school, supermarket, community hall, and a children's playground. The village also hosts a number of pubs, takeaways, and service stations, alongside a local GAA club.

Finally, the village of Glenville is situated c. 3.2km southeast of the Site. Amenities serving the local population include a primary school, grocery store, and church. The village is also home to Glenville Park, a historic Georgian estate with extensive gardens, there is also a local GAA club located here.

Mitigation measures are proposed in Chapter 12 - Material Assets, Telecommunications, Traffic and Transport in order to avoid indirect effect as far as possible on town and village centre facilities and services during the construction phase. The specific section of Chapter 12 that deals with Roads, Traffic and Transport is Section 12.4. The mitigation measures for this section are detailed in Section 12.4.7.

6.6.5 Human Health & Safety

This section provides an overview of the health profile of the receiving environment compared to the State and local authority averages. A comprehensive assessment of potential effects on human health is conducted across several technical chapters of this EIAR, specifically: Chapter 7 (Air Quality and Climate), Chapter 8 (Noise and Vibration), Chapter 11 (Hydrology and Water Quality), and Chapter 12 (Material Assets, Telecommunications, Traffic and Transport).

To provide a robust scientific basis for this assessment, peer-reviewed literature and national health statistics—including the Department of Health report, Health in Ireland – Key Trends 2022—have been utilised to contextualise potential effects arising from the construction and operation of the Proposed Development. Human health, in the context of this assessment, refers to the potential for adverse health effects on the local population. General health in Ireland remains high; the Department of Health (2022) indicates a steady trend of positive health outcomes over the last decade. This is reflected in the local receiving environment for the Coom Green Energy Park Grid Connection, as demonstrated by self-evaluation statistics from the 2022 Census.

Analysis of the 2022 Census data for the nine Electoral Divisions (EDs) intersecting the Proposed Development (Glenville, Carrig, Kildinan, Rathcormack, and Castlelyons) shows that the majority of the population resides within the 'Very Good' or 'Good' health categories. As detailed in Table 6-7 below, 3,272 persons (60.58%) in the study area recorded their health as ‘Very Good,’ while 1,544 persons (28.59%) recorded their health as ‘Good.’ The census data indicates that the population within the Proposed Development EDs is in a slightly better health condition overall—particularly regarding those stating 'Very Good' health—when compared to both the State and the combined Cork City and County averages.

These higher figures within the ‘Very Good’ category (60.58% locally vs 53.2% nationally) may be attributed to the predominantly rural nature and associated environmental benefits of the area, such as high air quality and lower population density, in contrast to more urbanised or industrial environments. This existing high-quality health profile serves as the baseline for assessing any potential temporary impacts during the construction phase of the grid infrastructure.

Table 6-7: Population by general Health of ED’s (Census, 2022)

General Health (Census 2022)	State	Cork City & County	Proposed Development - ED's
Very Good	53.2	55.15	60.58
Good	29.7	29.44	28.59
Fair	8.6	8.20	6.24
Bad	1.4	1.27	1.20
Very Bad	0.3	0.31	0.19
Not Stated	6.7	5.62	3.20

6.7 Assessment of Likely Significant Effects

6.7.1 Population - Construction Phase

The project will have a neutral effect on population numbers. As per the 2022 Census data for the 9 Electoral Divisions (EDs) in the study area, the population is characterised by a strong "At Work" profile (4,368 persons) and high health standards. These trends will not be significantly altered by the short-term construction activities.

6.7.1.1 Employment and Economic Activity - Construction Phase

The Proposed Development is not expected to negatively impact economic activity in the area. During the construction phase, aggregates, concrete, and surface dressing supplies will be sourced from local quarries in the Cork region where feasible, supporting the local economy.

The construction phase for the grid connection and substation is estimated to take approximately 12 months and may employ up to 10-25 persons, providing a temporary, positive effect on local employment. These workers employed can be expected to spend money locally, when using local shops or amenities. Overall, the effect on employment is considered imperceptible.

6.7.2 Land Use Patterns - Construction Phase

As described in Section xxx of this Chapter, the predominant land use along the GCR comprises mainly existing road infrastructure, with specific deviations into private agricultural lands and forestry tracks for the substation and specific grid segments. The surrounding land use is characterised by agriculture, residential properties, and commercial forestry.

The construction works will require a Road Opening Licence (ROL) and temporary traffic management measures along the grid route. This will include alternating one-way stop/go traffic and temporary road closures with local diversion routes. While this will result in temporary disruption to existing traffic and access for local landowners and residents, the active construction area will be restricted to a small "moving" footprint (typically, the UGC will be installed in 100 - 150m sections (depending on ground conditions). Details of road closures, stop-go systems and diversions associated with the Proposed Development are set out in the Traffic Management Plan (TMP) contained in the Construction and Environmental Management Plan (CEMP) in Appendix 2.2, Volume 3.

The construction works will therefore have a temporary, slight, and negative effect for road users and residents. Overall, it is considered that during the construction phase, there is likely to be a temporary, negative, and not significant effect on land use as outlined in Chapter 12.

6.7.3 Recreation, Amenity and Tourism - Construction Phase

Potential temporary minor disturbances as a result of noise, traffic may occur to users of local amenities, such as the Fermoy Golf Club (located 50m from the Site Boundary) and Glenville Park (c. 3.2 km from the Site Boundary). Mitigation measures outlined in Chapter 12 will be implemented to avoid and minimise indirect effects on village centre facilities and services in Rathcormac and Glenville. Consequently, following the implementation of these mitigation measures, the overall residual effect on recreation, amenity, and tourism during the construction phase is considered to be short-term, slight, and negative, and will not be significant.

6.7.4 Human Health & Safety - Construction Phase

There will be no loss of residential dwellings, and therefore there will be no displacement of the existing population. There will be no mass in-migration associated with the Proposed Development as it is expected that construction personnel will primarily be located in in Cork. A minor number of key employees involved in the specialised electrical construction may temporarily re-locate to the area for the duration of the works. The Proposed Development is likely to have a temporary, neutral, and imperceptible effect on population and human settlement during the construction phase.

Potential impacts on general amenity and wellbeing relate to noise, dust, and traffic during the 12 month construction window. These are fully assessed in the respective EIAR chapters as outlined in Table 6-8.

Table 6-8: Nuisance monitoring and assessment

Development Phase	Potential Nuisance/Health & Safety Issue	Addressed In EIAR Chapter
Construction Phase	Dust emissions	Chapter 7
	Noise emissions and vibration	Chapter 8
	Traffic nuisance	Chapter 12
	Visual impacts	Chapter 14

Noise and Vibration

Chapter 8 of this EIAR evaluates the potential noise and vibration effects of the Proposed Development against national and international standards. The construction phase will generate temporary noise from activities such as trenching, cable laying, and the construction of the 110 kV substation.

Technical assessments indicate that noise levels will remain within acceptable limits at all identified noise-sensitive locations throughout the construction period. To ensure minimal disturbance, mitigation measures—including the use of modern plant equipment and adherence to the BS 5228-1:2009+A1:2014 Code of Practice—will be strictly implemented. As detailed in Chapter 8, the construction works are expected to result in a temporary, slight to moderate negative effect on receptors in the immediate vicinity of active works.

Air Quality and Climate

Potential temporary impacts related to dust and vehicle emissions during the construction of the grid connection are addressed in Chapter 7. Fugitive dust may be generated during excavation and soil handling along the cable route; however, given the distances to the nearest sensitive receptors, levels are not expected to exceed the TA Luft 350mg/m²/day guide limit.

As detailed in the Mitigation Measures in Section 6.9, it is concluded that the effects on air quality will be temporary, negative, and imperceptible for the duration of the construction phase.

Traffic and Transportation

The construction of the grid connection, estimated to take approximately 6–8 months, will involve works within the public road network requiring a Road Opening Licence (ROL). Temporary traffic management, including stop/go systems and localised diversions, will be necessary to facilitate the safe installation of the underground cable. Details of road closures, stop-go systems and diversions associated with the Proposed Development are set out in the Traffic Management Plan (TMP) contained in the Construction and Environmental Management Plan (CEMP) in Appendix 2.2, Volume 3.

These activities will cause temporary disruption to local traffic and access for residents and landowners. However, as the construction footprint is transient— 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—the impact at any single location will be short-term. Following the completion of works, all roads will be reinstated to the standards required by the Local Authority. Chapter 12 determines that the residual effect on traffic will be temporary, negative, and slight to moderate.

Landscape and Visual Impacts

A landscape and visual assessment was conducted as part of Chapter 14. The visual effects associated with the grid connection are primarily limited to the construction phase due to the presence of machinery and open trenches.

Because the cable will be located underground, there will be no permanent change to the visual character of the road corridor once the ground has been reinstated and vegetation re-established. Chapter 14 concludes that the construction phase of the Proposed Development will result in temporary to short-term, not significant visual effects. No residual effects are anticipatedonce the construction and restoration phase are complete.

Operational impacts

Overall, the operational phase of the Proposed Development will not result in any significant adverse effects on population and human health. The underground nature of the grid connection infrastructure ensures that there will be no disruption to existing land uses, economic activities, or local amenities once construction is complete. Furthermore, it is important to reiterate that the operational phase impacts of the substation have already been comprehensively assessed as part of the consented Coom Green Energy Park (CGEP) Wind Farm EIAR. Consequently, the residual operational impacts of the Proposed Development on population and human health are considered to be long-term and imperceptible.

6.7.5 Population - Operational Phase

There will be no loss of residential dwellings, displacement of the existing population, or change in settlement patterns during the operational phase.

6.7.6 Employment and Economic Activity - Operational Phase

Operation of the Proposed Development is not expected to result in any impacts to the existing economic activity of the area.

6.7.7 Land Use - Operational Phase

All existing land use practices can co-exist with the Proposed Development, as it does not pose a significant risk to either existing or future land-uses.

6.7.8 Recreation, Amenity and Tourism - Operational Phase

There will be no severance or loss of rights of way or amenities as a result of the operational phase.

6.7.9 Human Health & Safety - Operational Phase

No likelihood of any significant effects on human health is associated with the operational phase, and no significant negative effects on the local human environment are expected.

6.8 Vulnerability of the Proposed Development to Major Accidents and Natural Disasters

The EIA Directive requires an assessment of the vulnerability of projects to major accidents and/or natural disasters (such as flooding, landslips, or industrial accidents) that could result in significant adverse effects on the environment. For the Coom Green Energy Park Grid Connection, this involves evaluating the exposure and resilience of the underground cabling and substation infrastructure to such events.

Should a major accident or natural disaster occur, the potential sources of pollution associated with the grid connection are extremely limited. Unlike a large-scale industrial facility, an underground cable (UGC) route and substation are not recognised sources of significant environmental pollution. The Proposed Development does not require Environmental Protection Agency (EPA) licensing, as it does not involve activities with ongoing significant emissions to environmental media.

The primary risk during the construction phase relates to the temporary storage of hydrocarbons (fuels and lubricants) for construction machinery. As detailed in the Construction Environmental Management Plan (CEMP), mitigation measures—including off-site refuelling where possible and secure, bunded on-site storage for stationary plant—are in place to prevent accidental spills.

Ireland possesses a mild temperate climate, and the site is not located in an area prone to extreme seismic activity or temperature-related natural disasters. Potential risks are therefore limited to:

- Flooding;
- Fire (specifically related to electrical infrastructure or surrounding forestry);
- Major incidents involving dangerous substances (SEVESO sites); and
- Landslides/Ground instability.

6.8.1 Flooding

As discussed in Chapter 11 (Hydrology and Water Quality), a review of Office of Public Works (OPW) flood mapping indicates that the Grid Connection Route (GCR) does not intersect any areas with a history of significant flooding. While some watercourse crossings are required along the route, the infrastructure is primarily underground and will be reinstated to existing ground levels, ensuring no permanent alteration to the floodplain or displacement of floodwaters.

Drainage for construction and operational phases of the Proposed Development shall be carried out in accordance with the Surface Water Management Plan (SWMP) contained in Appendix 1 of the CEMP. The SWMP shall ensure that during construction, temporary drainage measures will prevent any increase in runoff that could impact downstream areas. Consequently, it is not expected that flooding will pose a risk to the infrastructure or result in significant effects on the local population.

6.8.2 Fire

The vulnerability to fire relates primarily to the 110 kV substation and potential wildfires in adjacent commercial forestry. To mitigate these risks:

Design Breaks: The 110 kV substation is designed with appropriate separation distances from surrounding vegetation to maintain a fire break.

Monitoring: The substation and grid connection will be integrated into a Supervisory Control and Data Acquisition (SCADA) system, allowing for 24/7 remote monitoring. This system provides early warning of technical failures, such as overheating or electrical faults, allowing for immediate remote de-energisation.

Equipment Safety: Electrical components are housed in fire-rated enclosures. In the highly unlikely event of an electrical fire, the impact would be localised. While smoke could briefly affect local air quality, the rural and sparse nature of the route ensures that significant risks to human health or property are minimised.

6.8.3 Major Incidents Involving Dangerous Substances (SEVESO)

The SEVESO III Directive (2012/18/EU) regulates sites where dangerous substances are handled in large quantities. The Health and Safety Authority (HSA) identifies these as "Upper Tier" or "Lower Tier" establishments.

A review of the Cork County Development Plan 2022-2028 and HSA records confirms that there are no SEVESO establishments in the immediate vicinity of the Coom Green Energy Park Grid route and substation. The nature of the Proposed Development (underground cabling and an electrical substation) does not involve the storage of substances in quantities that would fall under the SEVESO remit. Therefore, there is no significant risk to population or human health arising from a SEVESO-related accident.

6.8.4 Catastrophic Events

In the context of a grid connection, catastrophic events refer to large-scale infrastructure failure, such as a substation explosion or a major structural failure during construction.

All electrical infrastructure will be designed and installed in accordance with EirGrid and ESB Networks specifications, which include rigorous safety factors and protection relays. Underground cables are inherently protected from extreme weather events such as high-intensity storms or wind, which might otherwise affect overhead lines.

The construction phase will be managed by competent, trained personnel under a strict health and safety regime. Given the underground nature of the majority of the development, the risk of a "catastrophic" failure affecting the public is considered negligible.

6.8.5 Landslides

Landslides can occur where excavations disturb unstable slopes or peat deposits. As outlined in Chapter 10 (Soils, Geology and Hydrogeology), the GCR has been designed following extensive site investigations, including peat probing and slope stability analysis.

Findings from site walkovers and GSI mapping indicate that the route is generally located in areas of "Low" susceptibility to landslides. Specific design mitigations include:

- Avoiding areas of high-risk slope instability.
- The use of standard trenching methodologies that minimise the duration of open excavations.
- Reinstatement of all excavated materials to match original profiles.
- Through the implementation of these geotechnical design measures, the risk of landslides affecting the development or the surrounding population is considered imperceptible.

6.9 Mitigation Measures

The mitigation measures outlined in this section are designed to ensure that any potential adverse effects on Population and Human Health are systematically avoided, reduced, or offset. These strategies will be integrated into the final CEMP and strictly adhered to by the appointed contractor throughout the project lifecycle.

6.9.1 Construction Phase

To protect the health of residents and workers in proximity to the active works, standard dust management practices will be primary to the construction methodology. During dry periods, water spraying of active work areas and haul roads will be conducted using water bowsers to minimise airborne particulate matter. A wheel-wash system will also be installed at site egress points to prevent the track-out of sediment onto the public road network. Furthermore, any excavated material stored on-site will be managed to minimise windblown dust, and all vehicles transporting fine-grained materials will be appropriately covered. The consistent application of these measures ensures that the residual effect on air quality remains temporary, negative, and imperceptible for the duration of the construction phase.

The linear nature of the grid connection requires a "moving" construction footprint, which necessitates specific mitigation to maintain community safety and land use functionality. All works conducted within the public road corridor will be executed under a Road Opening Licence (ROL) as agreed with Cork County Council. A site-specific TMP will be agreed with Cork County Council and deployed to govern these works, utilising alternating one-way stop/go systems to maintain vehicular flow and coordinating temporary road closures with clearly signed local diversion routes. To limit the duration of disruption at any single receptor location, the active construction zone will be restricted to a footprint of approximately 100 m to 150 m in length at any given time. Access to all local residences, farms, and commercial premises will be maintained at all times; where trenching occurs directly in front of an entrance, steel plating or similar temporary measures will be utilised to ensure continuous access. Additionally, construction traffic will be mandated to use designated haul routes to avoid unnecessary transit through the village centres of Rathcormack and Glenville.

Proactive community engagement will be facilitated by an appointed Community Liaison Officer (CLO), who will maintain a dialogue with the local community and provide residents in Fermoy, Rathcormack, Castlelyons, and Glenville with advance notification of scheduled works. To avoid disruption to material assets and local utilities, pre-construction surveys and slit trenching will be performed to confirm the exact location of existing underground services prior to any excavation. Finally, the construction methodology and TMP will ensure that the passage of emergency vehicles through active work zones is prioritised and maintained at all times.

6.9.2 Operational Phase

The 110 kV substation and associated cabling have been designed in accordance with international safety standards and EirGrid/ESB specifications to minimise any inherent risk to the public. During the operational phase, the substation will be subject to 24/7 remote monitoring via a SCADA system, and the site will remain securely fenced with appropriate hazard signage to prevent unauthorised access. Any required periodic maintenance activities will be carefully coordinated to ensure minimal interaction with existing forestry and agricultural operations in the area.

6.10 Residual Effects

- It is not likely that the Proposed Development will directly or indirectly result in any reduction in existing economic activity of the area during any phase of the development.
- There will be no loss of residential dwellings and therefore there will be no displacement of the existing population or change in settlement patterns.
- In terms of impacts to neighbouring lands and land-uses it is considered that the Proposed Development does not pose a significant risk to either existing or future land-uses. All existing land use practices can co-exist with the Proposed Development. There will be no severance, loss of rights of way or amenities as a result of the Proposed Development
- With the implementation of standard traffic management measures as set out in Chapter 12 Material Assets, Telecommunications, Traffic and Transport nuisances will be kept to a minimum.
- Specific attention has been given to the M8 Motorway crossing and local road networks to ensure that construction-related traffic management, as outlined in Chapter 12 (Material Assets), minimises disruption to regional tourism transit and local amenities.
- With the implementation of standard best management construction activities as set out in Chapter 11 Air and Climate, dust levels will remain within recommended acceptable guide limits.
- With the implementation of mitigation measures as set out in Chapter 9 Noise and Vibration, noise nuisances will be kept to a minimum and within acceptable noise limits.

Overall, there will be no significant residual effects on population and human health as a result of the Proposed Development.

6.11 Do-Nothing

The “Do-Nothing” scenario refers to the outcome that would occur should the Proposed Development not proceed. In this event, the Proposed Development Site would remain in its current state, continuing its existing land-use patterns of commercial forestry and agricultural activity.

From a population and human health perspective, the "Do-Nothing" scenario would eliminate the temporary negative effects associated with the construction phase, such as localised noise, dust, and traffic disruptions along the 110kV and 33kV routes.

However, this scenario results in the failure to achieve the fundamental project objective: the provision of critical grid infrastructure required to export renewable energy from the Coom Green Energy Park to the national grid. By not proceeding, the project would fail to contribute to Ireland’s binding national targets for renewable energy integration and the reduction of carbon emissions as set out in the Climate Action Plan.

6.12 Cumulative Effects

A list of developments assessed for cumulative effects with the Proposed Development is contained in Appendix 1.3, Volume 3 of the EIAR.

The Proposed Development, in combination with the existing, consented, and proposed developments listed in Appendix 1.3, will have a cumulative effect on land use in the area considered. This introduces additional energy and waste infrastructure to an established landscape consisting primarily of agricultural land, commercial forestry, and the existing Bottlehill Landfill site. Given the nature of the surrounding environment, this is expected to have a non-significant to slight long-term negative impact on agricultural land availability.

The cumulative effects of the Proposed Development, alongside the consented Coom Green Energy Park has been assessed in the context of Population and Human Health. The resulting cumulative effects are considered to be long term in duration and neutral for the operational phase. Both developments shall be constructed under a single project programme and the construction stage cumulative effects are considered to be short term and imperceptible.

The cumulative effects of the Proposed Development, alongside projects such as the various proposed Solar Farms and the Sanmina BESS facility, would result in increased temporary employment figures within the local area. These effects will provide a short-term but significant positive impact on local employment and businesses during the construction and decommissioning phases. Furthermore, local businesses in Fermoy, Rathcormac, Castlelyons, and Glenville will likely receive a slight indirect positive economic impact due to the influx of workers requiring local services and retail.

There are limited major tourism attractions located in the immediate vicinity of the Site, with the exception of local recreational amenities such as Fermoy Golf Club (located c. 50 m from the Site Boundary). The construction, operation, and decommissioning phases of the Proposed Development are not expected to have a cumulative impact on regional tourism numbers or revenue. Any identified temporary effects on local recreation and amenity during construction—particularly regarding traffic and access—will be mitigated through the implementation of a TMP to ensure minimal disruption to the local community and visitors to the area.

Finally, the infrastructure provided by the 110 kV GCR and substation will have a long-term significant positive cumulative impact on utility infrastructure and the integration of renewable energy resources into the national grid. This supports the transition away from non-renewable fossil fuels and contributes to national energy security.

6.13 Conclusion

As with any development, the construction activities can cause a nuisance to the local community and are likely to pose temporary minor disturbances locally. The most notable of these disturbances relates to the generation of additional traffic on the local network. Here noise and safety implications are also a concern. However, disturbances associated with the additional volumes of traffic will principally be confined to the construction phase and will cease on completion of works. Details of road closures, stop-go systems and diversions associated with the Proposed Development are set out in the Traffic Management Plan (TMP) contained in the Construction and Environmental Management Plan (CEMP) in Appendix 2.2, Volume 3.

This conclusion is further supported by the specific nature of the grid connection works, which will follow a "moving" construction footprint along approximately 12.1 km of the public road network. To ensure minimal disruption, full road closures will only be implemented on a rolling basis for short sections during trenching, and access to all local houses, farms, and businesses will be maintained at all times. To further protect national infrastructure, the crossing of the M8 Motorway will be achieved using Horizontal Directional Drilling (HDD), thereby avoiding any direct impact on the primary arterial route.

The assessment confirms that there will be no significant adverse effects on the receiving environment, even when considering cumulative impacts with adjacent projects such as the consented Coom Green Energy Park development.

Construction activities will be strictly governed by a detailed Traffic Management Plan (TMP) and a Construction Environmental Management Plan (CEMP), ensuring that appropriate mitigation measures are applied to manage noise and safety risks effectively. Ultimately, the Proposed Development will provide essential infrastructure for the integration of renewable energy into the national grid without resulting in significant long-term negative effects on the local population or human health.

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