

## 4 PROJECT DESCRIPTION

### 4.1 INTRODUCTION

This Chapter provides a description of the nature and scale of the proposed development. It also provides a context for the proposed development in terms of its wider catchment area and its local environment.

### 4.2 GENERAL DESCRIPTION OF SITE AND SURROUNDINGS

The subject site is located at Kilshane, Dublin 11, west of the N2 Primary Road and is located approx. 2 km north-west of the M50, as shown in Figure 1.1 above. It is mostly greenfield, with a farmhouse and associated structures clustered in the northwest. It is 13.56 ha in area. This includes c. 0.96 ha of adjacent public roads which are included for purposes of laying of buried services and local upgrades. The site is mostly in the northern part of lands owned by Kilshane Energy which cover a total area of 28.56 ha.

The site is bound to the north and northwest by the Kilshane Road, to the west and southwest by a light industrial site and agricultural lands, to the south and southeast by Huntstown Quarry, and mostly agricultural lands to the east with the N2 road to the north east.

### 4.3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

#### 4.3.1 GENERAL DESCRIPTION

The proposed development is a gas turbine power generation station with a maximum output of up to 293 Megawatts. In brief, it includes a turbine, associated exhaust stack, two air cooled condenser units, administration and control building, workshop, stores, fuel gas area, electrical module for fuel gas area, step-up transformer, transfer compound, one fuel oil tank, one demin water tank and one raw water tank and recessed bund area, miscellaneous plant, and equipment, staff car parking spaces (10% of which will be EV charging spaces), site and landscaping works, and all associated ancillary site development infrastructure including foul and surface water drainage, internal roads, and footpaths, and all associated engineering and site works necessary to facilitate the development.

It is also proposed to realign a section of the Kilshane Road and construct a new roundabout junction as part of the works. The road realignment will tie into the existing road network in the public domain.

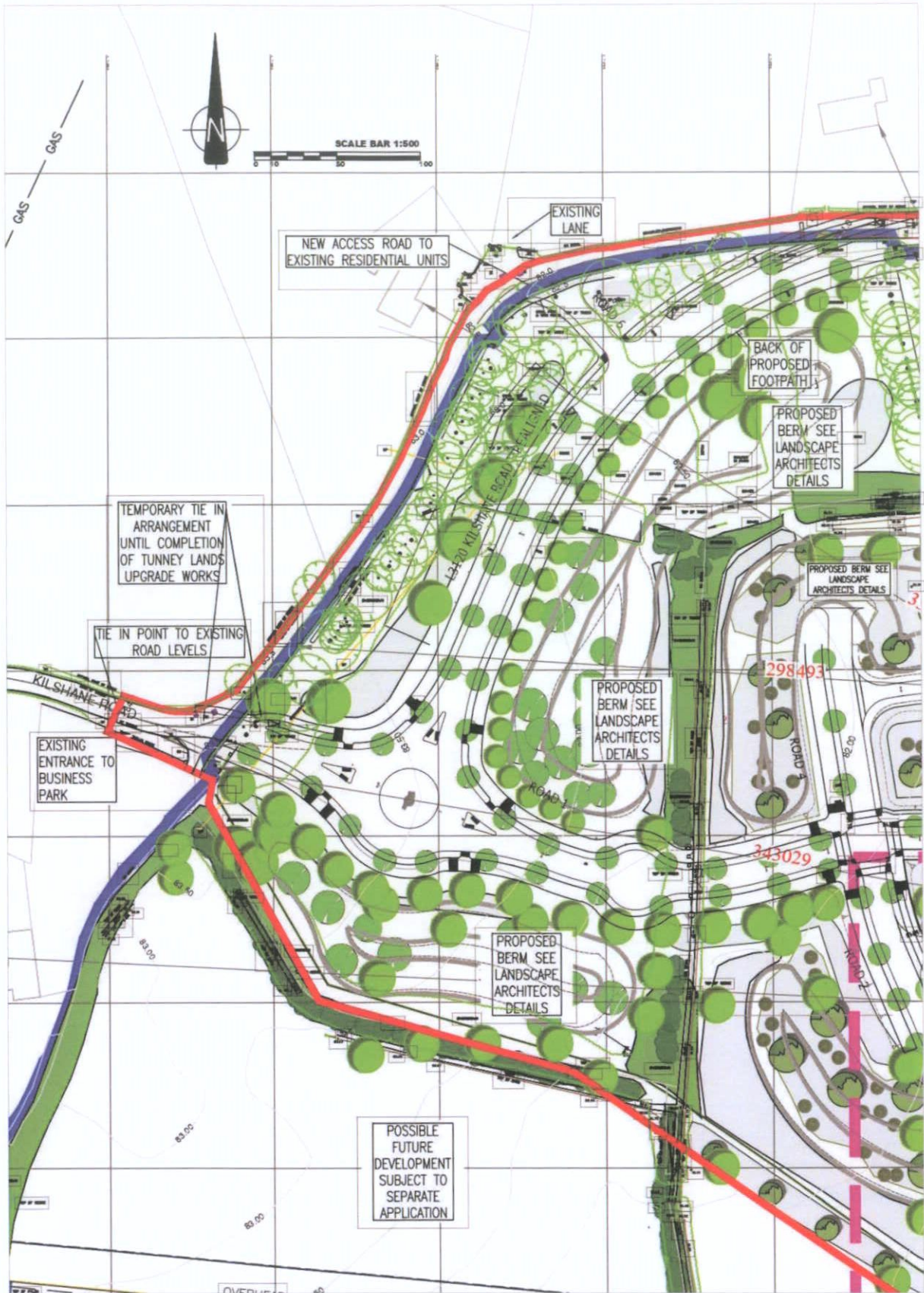
As set out in the planning notice, the proposed development includes;

- The construction of a new Gas Turbine Power Generation Station with an output of up to 293 Megawatts. The proposed station will consist of 1 no. Gas Turbine and 1 no. 28 m high Exhaust Stack partially enclosed by a 12 m high acoustic wall. 1 no. single storey Admin Building and Warehouse (c. 926 m<sup>2</sup>), 1 no. single storey Packaged Electronic/Electrical Control Compartment (PEECC) (c. 72 m<sup>2</sup>), 1 no. single storey Continuous Emission Monitoring System (CEMS) Shelter (c. 14.8 m<sup>2</sup>), 1 no. 16.20m high x ø24.4m Fuel Oil Tank, 1 no. 15.30m high x ø9.2m Raw/Fire Water Tank, 1 no. 16.20m high x ø18.3m Demin Water Tank, and miscellaneous plant equipment.
- The demolition of a detached residential dwelling (c. 142 m<sup>2</sup> GFA) and associated farm buildings (c. 427 m<sup>2</sup> GFA) located in the north west corner of the subject site to facilitate the proposed development.
- Road improvement works to 493.34 m Kilshane Road (L3120), including the realignment of a portion of the road (293.86 m) within the subject site boundary and the provision of new footpaths, off-road cycle ways, together with the construction of a new roundabout linking the proposed realignment of Kilshane Road back to the existing road network to the

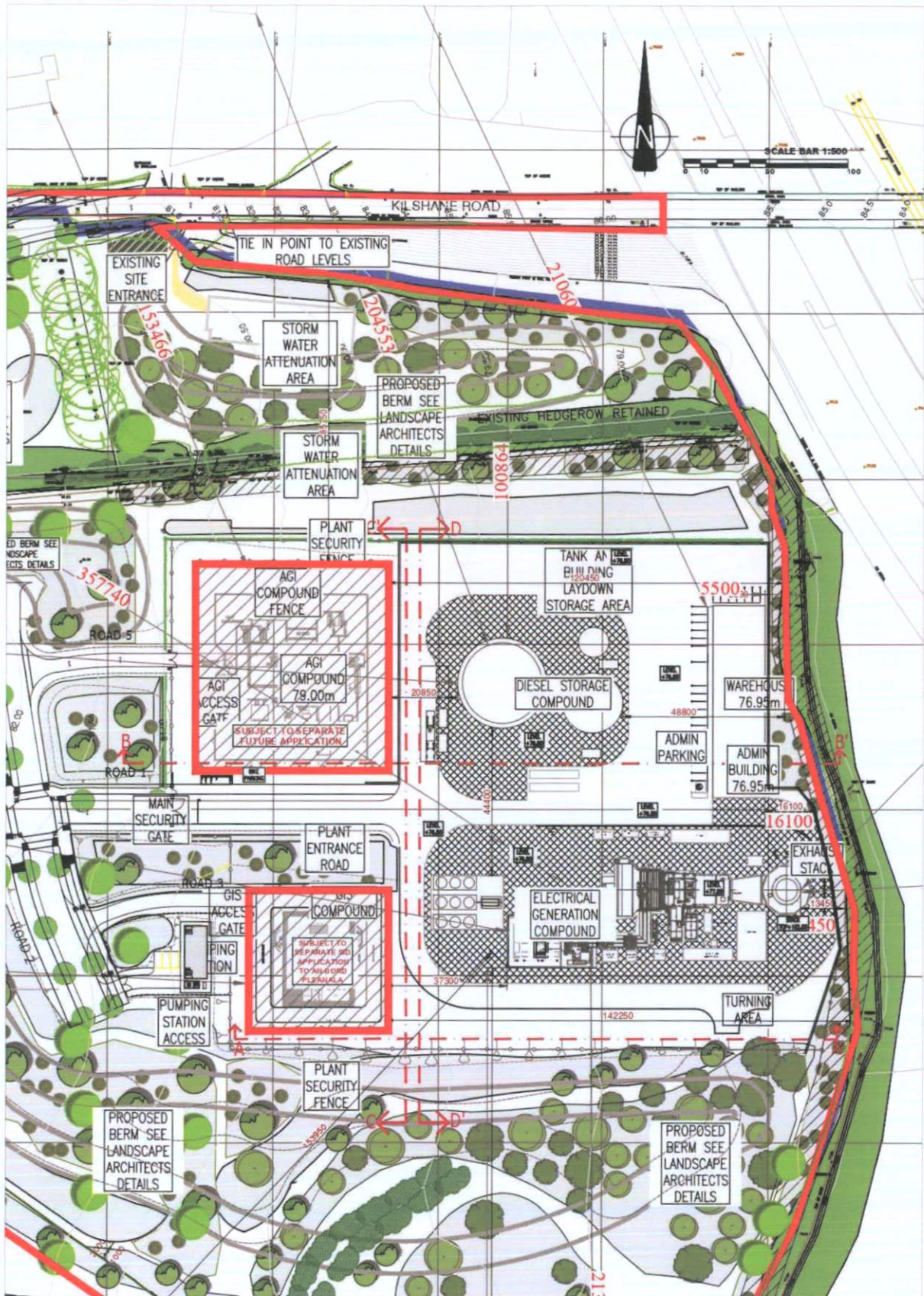
- northeast of the subject site and to the proposed internal road network to serve the proposed development.
- The construction of entrance gates, low wall and railings fronting the realigned Kilshane Road and a private internal road network providing for vehicular, cyclist and pedestrian access to serve the development. Construction of 3 m high security fencing within development.
  - Total provision of 26 no. car parking spaces including 1 no. disabled persons parking space and 2 no. EV electrical charging points.
  - Provision of security lighting columns to serve the development and the installation of Closed-Circuit Television System (CCTV) for surveillance and security purposes.
  - Provision of 20 no. sheltered bicycle parking spaces.
  - Provision of hard and soft landscaping works, tree planting and boundary treatments including 3 m high security fence along Kilshane Road and the perimeter of the subject site boundary.
  - Provision of new on-site foul sewer pumping station to serve the development.
  - Provision of underground surface water attenuation areas to serve the development.
  - All associated site development and excavation works, above and below ground, necessary to facilitate the development.



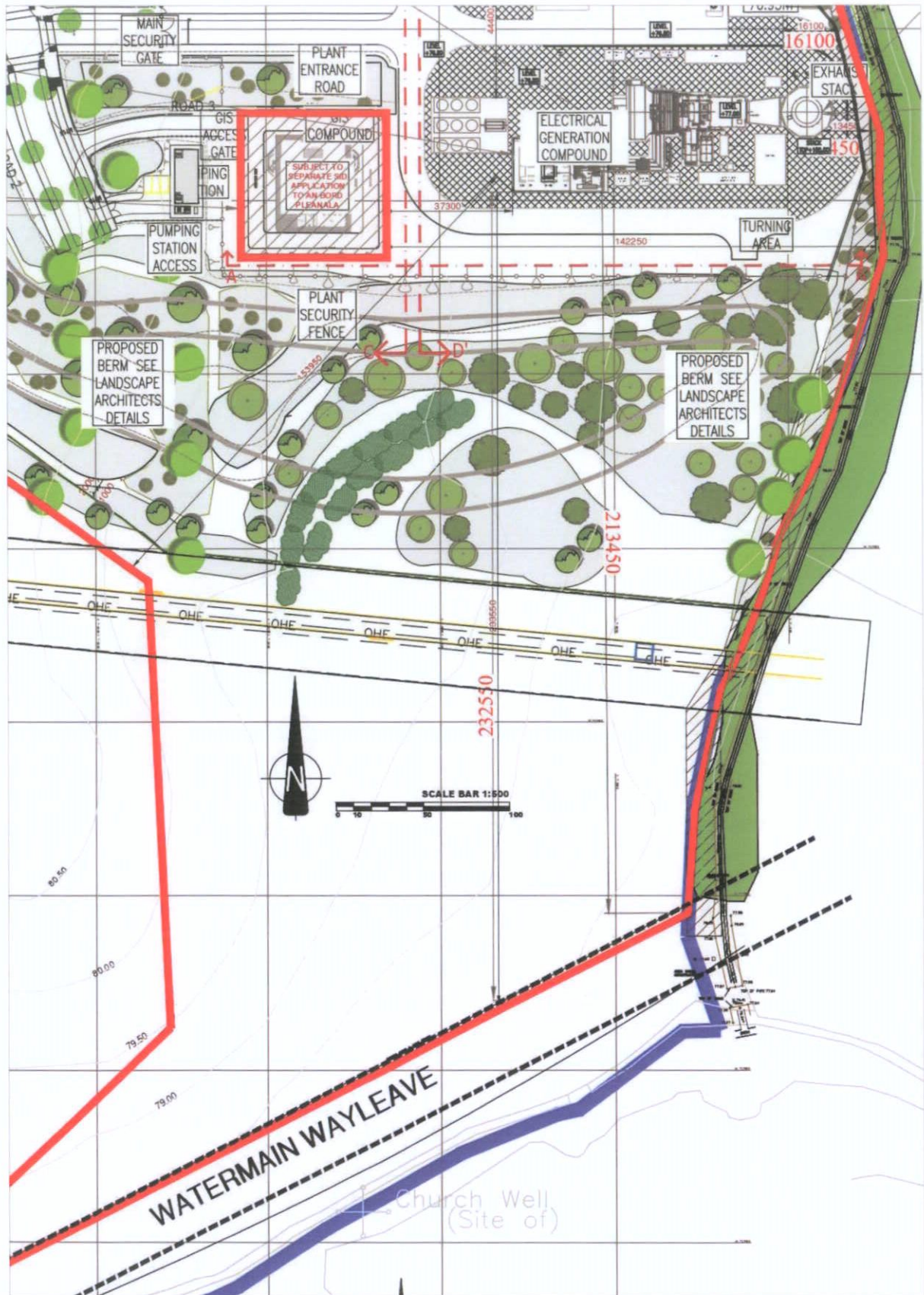
**Figure 4.1 Overall proposed site plan**  
(See drawing set for full resolution version)



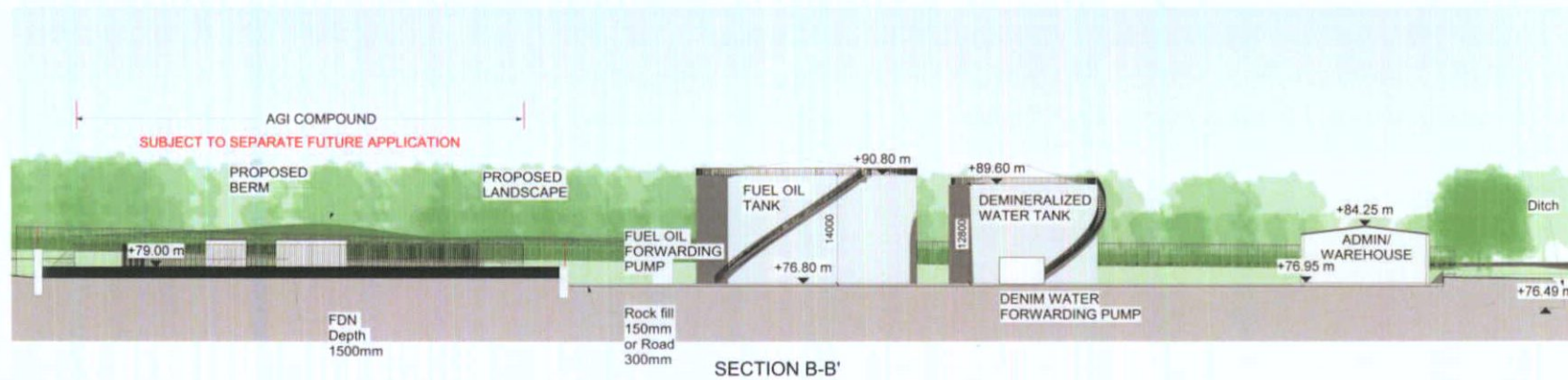
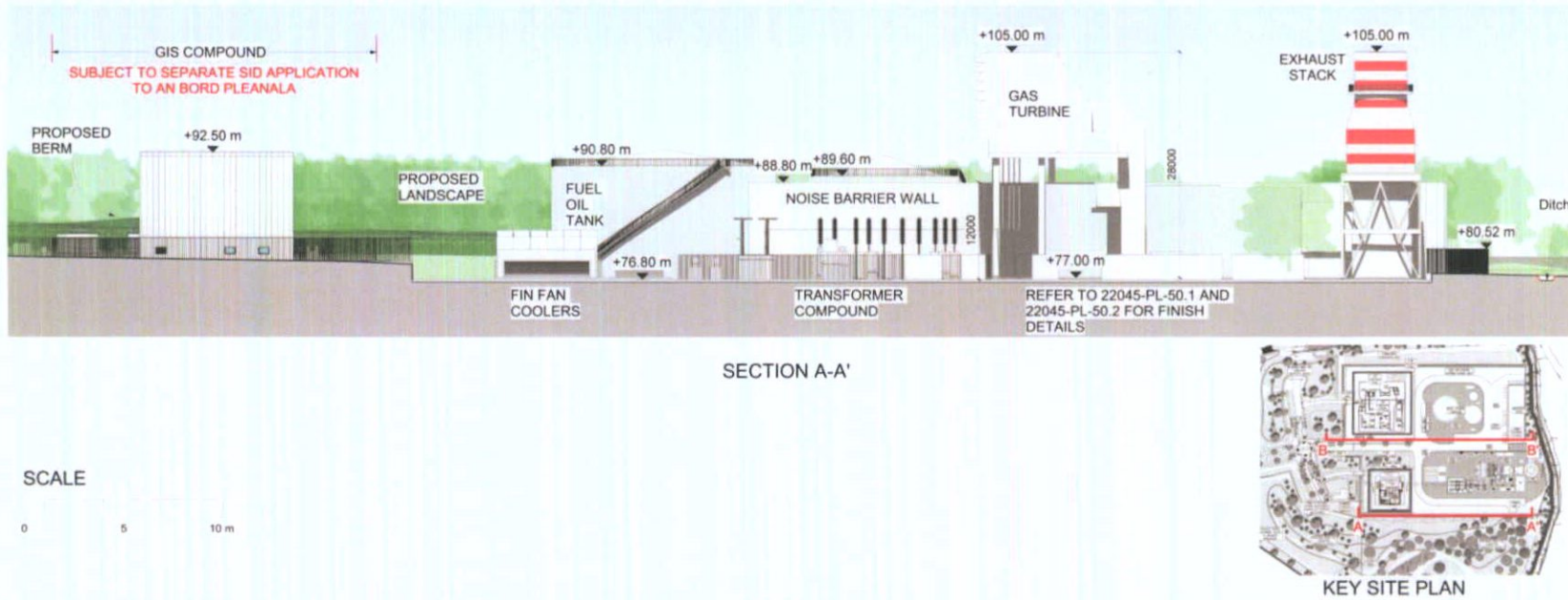
**Figure 4.2 Proposed site plan part 1**  
(See drawing set for full resolution version)



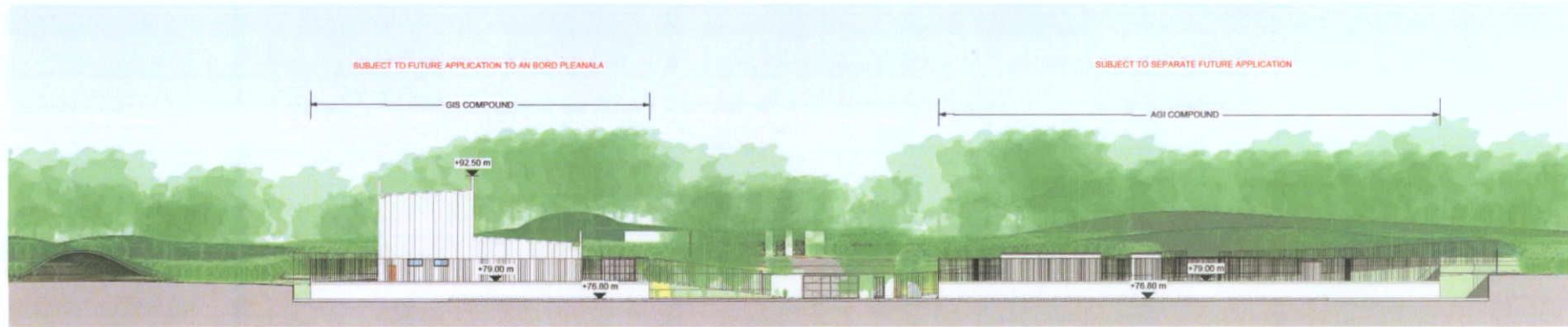
**Figure 4.3 Proposed site plan part 2**  
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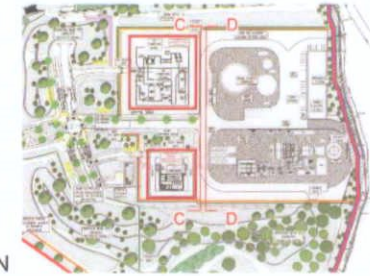
**Figure 4.4 Proposed site plan part 3**  
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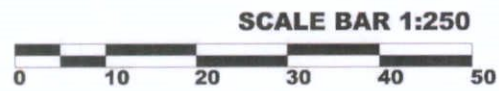
**Figure 4.5 Proposed site sections AA and BB**  
 (See drawing set for full resolution versions)



SECTION CC



KEY SITE PLAN



SECTION DD

**Figure 4.6 Proposed site sections CC and DD**  
(See drawing set for full resolution versions)



## 4.4 OVERALL PROCESS DESCRIPTION

The proposed power plant facility will be connected to the EirGrid transmission network and will export power when dispatched by EirGrid up to the specified Maximum Export Capacity (MEC) in the EirGrid Connection Agreement. When the power plant is exporting power, it will simultaneously power facility loads. When the power plant is offline, it will import power from the EirGrid transmission system for facility load.

The power plant consists of one single shaft outdoor gas turbine (General Electric 9FA.04 or equivalent) with one air cooled electric generator. The turbine is designed for dual fuel operation, with natural gas as the primary fuel source and ultra-low sulphur diesel fuel oil as emergency backup. Fuel oil operation is limited to less than 500 hours per year.

The natural gas is to be supplied from a gas yard enclosed by the power plant site. No fuel gas compression is required. The gas yard filters, meters, heats, and pressure-regulates the gas to meet the turbine requirements. The gas yard will have a perimeter security fence and an access gate.

The gas yard, known as an Above Ground Installation (AGI), and its connection to the nearby gas main, will be subject to separate consent from the Commissioner for the Regulation of Utilities (CRU). It will be developed, owned and operated by Gas Networks Ireland.

Fuel oil will be delivered via tanker trucks and manually pumped at an unloading station to a permanent onsite double wall storage tank. Fuel oil forwarding pumps will supply oil to the turbine, where air extracted from the gas turbine compressor will be used to atomize the fuel oil prior to combustion. When operating on fuel oil, demineralized water will be injected into the fuel nozzles to control NOx emissions. The demineralized water will be generated using onsite mobile mixed bed trailers, which do not produce wastewater during operation and are taken offsite for regeneration.

The gas turbine will draw air through the inlet filter house and into the compressor, where it will be pressurised and heated before combustion. Compressed air will be mixed with fuel and ignited in the combustion chambers. The hot pressurized gas will enter the turbine, where it will expand and produce mechanical energy by spinning the shaft. The exhaust gas will exit the turbine through ducting and a horizontal silencer before being discharged out of the vertical stack.

The mechanical energy will be converted in the generator to three-phase, 50Hz power at 21kV. The power will be transmitted in isophase bus duct to the generator circuit breaker. Taps off of the isophase bus duct after the generator circuit breaker will supply power to the gas turbine generator static start system and excitation system, and to the unit auxiliary transformer (UAT) to power facility loads. The UAT will lower the voltage and supply power to the facility switchgear and MCC's. The facility switchgear and MCC's will distribute power to the facility loads. These will be located in the outdoor power distribution centre enclosure and in the control/warehouse building electrical room. The isophase bus will transmit the remaining power to the generator step-up transformer (GSUT). The GSUT will increase voltage from 21kV to 220kV transmission line voltage. The high voltage system will include a disconnect switch, underground cables, and a gas insulated switchgear (GIS) building. The GIS building will have a perimeter security fence and an access gate. The transmission line will continue underground offsite into the EirGrid transmission system (Ref Chapter 12 for further details and Appendix 17.2 *Environmental Report*). A relay protection system will maintain safety and power quality between the facility 220kV system and the generator.

Like the AGI, the GIS building also is enclosed by the power station site and is subject to a separate consent process. In this case the consent is sought from An Bord Pleanála under Strategic Infrastructure Development (SID) legislation.

## 4.5 OPERATING HOURS

The plant is forecast to operate for between 22 and 95 hours in a year with an annual average of 46 hours. It is required to be available to follow dispatch instructions from EirGrid, the Transmission System Operator (TSO). The TSO will decide the actual operating hours of the unit depending on system needs at any point in time. Appendix 9.3 *A comparison of future carbon emissions within the SEM with and without the Kilshane GT*, describes the basis of the likely operating hours (p26-27) and the circumstances that would lead to what is referred to as 'baseload operation' (p31-32). Baseload operation means operation for the maximum theoretical design capacity hours. This would see the plant operating for approximately 98% of available time, i.e. 24 hours every day of the year less approximately 2% maintenance time. As described in the report the conditions that would lead to baseload operation are highly improbable to occur. Nonetheless for the purposes of a compliant EIA process, this EJAR includes assessment of the baseload operational scenario.

## 4.6 CONSTRUCTION

A Preliminary Construction Management Environmental Plan is separately included in the planning application document set. This provides information of the key elements of the construction plan including environmental controls.

The proposed development is likely to be constructed in six phases over an anticipated 20 month timeline.

The proposed development is likely to be constructed in six phases as indicated on accompanying CWPA Drawings 22045-PL-04.02 and 22045-PL-05.01 (also ref Figure below) and includes, in broad terms, the following: -

### Phase 1 (0-3 months) Site set up

- Construction of perimeter / security fencing and access gates around the site
- Construction of contractor's compound / staff parking area
- Construction of plant storage area
- Construction of wheel wash facilities
- Site clearance works including tree felling and building demolition
- Provision of temporary silt fences

### Phase 2 (1-4 months) Site access construction & Mass Excavation

- Site (topsoil) stripping
- Bulk excavation / level reduction to formation level (road and structural formation)
- Stockpiling / removal off site of bulk excavated material as appropriate
- Kerbing, sub-base and base course construction of new roundabout at site access

### Phase 3 (3-12 months) Road, services and building works

- Kerbing, subbase and base course construction of realigned Kilshane Road
- Underground services construction - foul, surface water and water supply, including underground attenuation tank and foul pumping station
- Underground services construction – utilities
- Construction of sub-structure foundations
- Construction of ground floor slab / service yard slabs
- Commencement of above ground works

### Phase 4 (12-18 months) Sub-station

- Installation of gas turbine
- Construction of exhaust air stack
- Construction of acoustic wall
- Construction of fuel / water tanks
- Testing and commissioning

Phase 5 (12 – 18 months) Site works

- Construction of site lighting, CCTV and security structures
- Construction of roundabout and realigned Kilshane Road road binder course, footpaths, cycletracks and lighting
- Hard landscaping works including car parking and bicycle parking areas
- Construction of site boundary

Phase 6 (18-20 months) Completion of road and landscaping works

- Construction of tie-in to existing Kilshane Road and provision of surface course, road signage and markings
- Completion of hard and soft landscaping works including site access road and permanent security fencing
- Decommissioning of Contractor's compound etc. and reinstatement of same

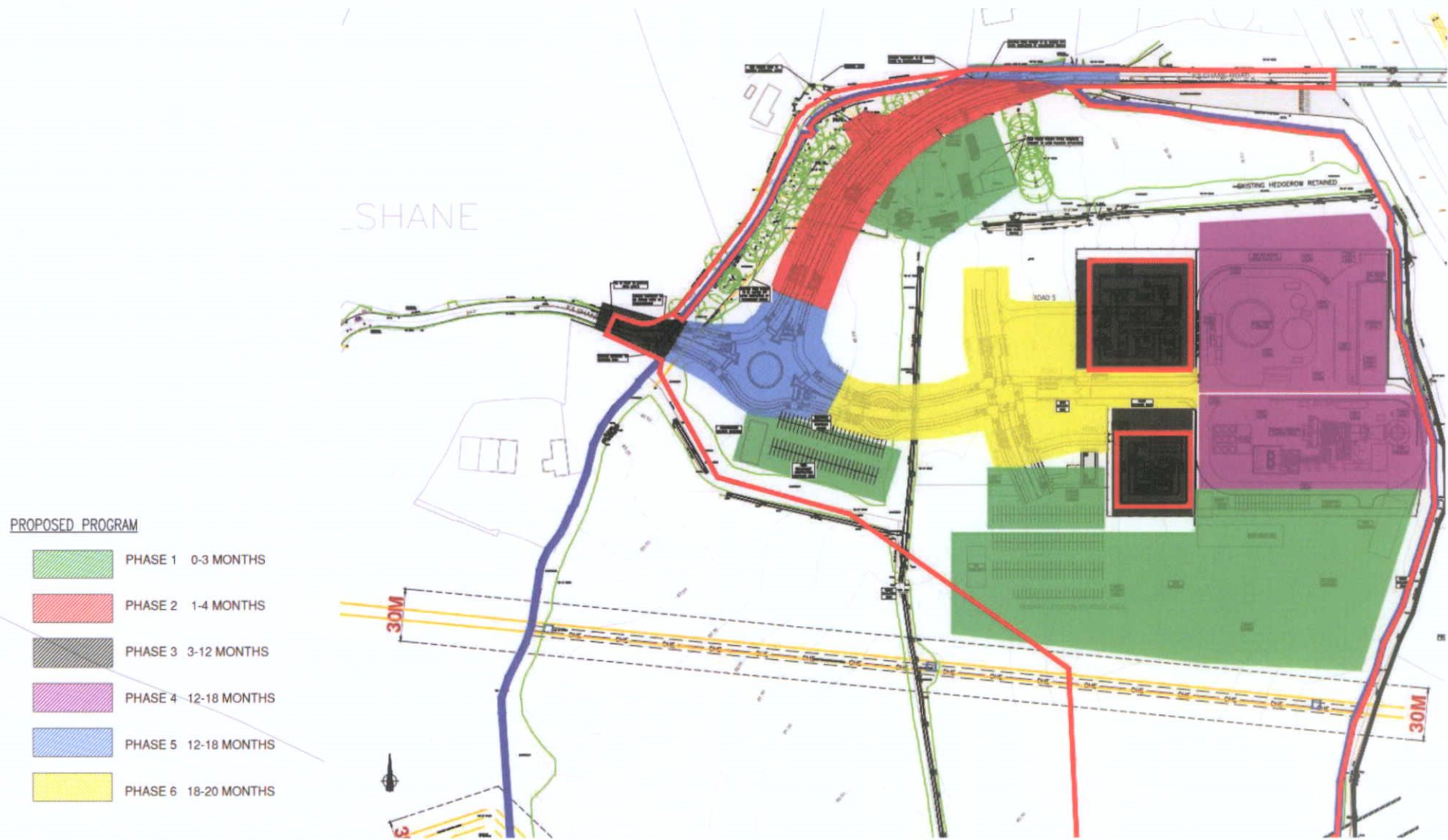


Figure 4.7 Construction phasing plan

It is currently envisaged that the construction of the project will commence in 2023 for completion in 2025.

The above high level phasing and sequencing will be reviewed in greater detail during the preparation for the construction stage Construction Environmental Plan.

It is anticipated that the project headcount will peak at 200-250 persons on site including construction, supervision, construction management and commissioning personnel. The peak will be achieved at the midpoint of the project timeline.

## 4.7 DECOMMISSIONING

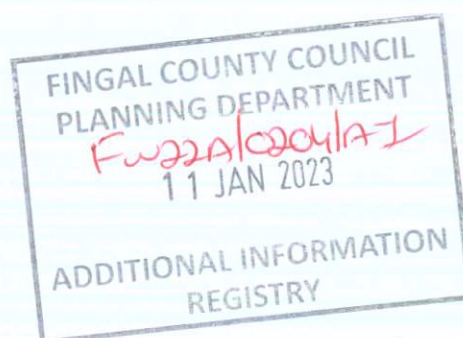
The design lifespan of the plant is approximately 25 years. At the end of its lifetime, given the industrial zoning of the area, the site is likely to be repurposed. All above ground equipment is likely to be decommissioned and removed from site. All decommissioning will be subject to EPA licence compliance. A Decommissioning Plan including a Decommissioning Environmental Management Plan will have to be agreed with the EPA prior to surrender of the sites IED licence. Demolition of the plant will also be subject to planning consent requirements including EIA and AA as applicable.

Because the demolition and decommissioning details will be developed and assessed prior to the end of the life of the facility, in compliance with all of the above requirements, including EIA requirements, they are outside the scope of the consent and EIA processes for the subject development.

## 4.8 EMISSIONS AND EPA LICENSING

Emissions from industrial facilities are regulated by the Environmental Protection Agency (EPA). The Industrial Emissions Directive<sup>6</sup> (IED) was transposed into Irish legislation through the EPA Act 1992<sup>7</sup>, the EPA (Industrial Emissions) (Licensing) Regulations 2013<sup>8</sup> and its subsequent amendments<sup>9</sup> and the European Union (Industrial Emissions) Regulations 2013<sup>10</sup>. The proposed development will be subject to licensing under these Regulations.

Emissions data are provided within specialist chapters of this EIAR and their appendices where required for assessment purposes, particularly Chapter 10 *Noise & Vibration*, Appendix 10.2 *Noise modelling details and assumptions*, Chapter 9 *Air Quality and Climate* and Appendix 9.5 *Plume modelling report*.



# 5 POPULATION & HUMAN HEALTH

## 5.1 INTRODUCTION

This Chapter of the EIA has been prepared by CWPA Planning & Architecture to assess the likely impacts associated with Population and Human Health during the Construction and Operational Phases of the Proposed Development in the Townland of The Ward, Co. Dublin. This chapter evaluates the impacts of the Proposed Development on demographic profile and human health.

In accordance with the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022), Draft Advice Notes for Preparing Environmental Impact Statements (EPA, 2015), and European Commission (EC), Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (EU, 2017), this chapter has considered the *"existence, activities and health of people"* with respect to *"topics which are manifested in the environment such as employment and housing areas, amenities, extended infrastructure or resource utilisation and associated emissions"*.

The Proposed Development will consist of the construction of a Gas Turbine Generation Station with an output of up to 293 Megawatts and all associated ancillary site development works including road and water services infrastructure, all at a site of approximately 13.56 Ha.

In accordance with the EPA EIA Report Guidelines (2022), this chapter has considered that in an EIA the assessment of impacts on population and human health should refer to the assessment of those factors under which human health effects might occur, as addressed elsewhere in the EIA e.g. under environmental factors of air, water soil etc.

The Guidelines also note:

*"The legislation does not generally require assessment of land-use planning, demographic issues, or details socio-economic analysis. Coverage of these can be provided in a separated Planning Application Report to accompany an application for planning permission"*

The environmental aspects examined in this Chapter include the following:

- Chapter 7: Land, Soils, Geology & Hydrogeology,
- Chapter 8 Water & Hydrology,
- Chapter 9: Air Quality & Climate,
- Chapter 10: Noise & Vibration

Where these environmental aspects have been assessed Issues examined in this chapter include:

- Population and Demographics.
- Employment.
- Education
- Deprivation
- Health and Safety
- Social Infrastructure
- Air Quality & Climate.
- Noise & Vibration.
- Traffic.

Where these topics are dealt with in further detail elsewhere in this EIA chapter, the relevant chapters have been cross referenced.

This chapter has been prepared by Joe Corr, Managing Director and Mark Whelan, Senior Planner, of CWPA Planning and Architecture Consultants. Joe has 15 years' professional experience of town and

spatial planning in Ireland, is a Corporate Member of the Irish Planning Institute and holds a MSc in Spatial Planning from TU Dublin. Mark has 6 years' professional experience in planning in private consultancy in Ireland, he holds a MRUP – Masters in Regional & Urban Planning and is a Corporate Member of the Irish Planning Institute.

## 5.2 ASSESSMENT METHODOLOGY

At the time of writing there is no specific guidance from the EU Commission on the 2014 EIA Directive to indicate how the new term 'Human Health' should be addressed. Therefore, this chapter of the EIA document has primarily been prepared with reference to national publications which provide guidance on the 2014 Directive including the Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment (2018) and the EPA Guidelines (2022 Guidelines) on the information to be contained in environmental impact assessment reports, published by the EPA in May 2022.

The preparation of this chapter has also had regard to the guidance published by the European Commission in 2017 on the preparation of EIARs (taking account of the changes introduced under the 2014 directive). The European Commission guidance states the following in relation to the assessment of Human Health:

*'Human health is a very broad factor that would be highly Project dependent. The notion of human health should be considered in the context of the other factors in Article 3(1) of the EIA Directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arising from major hazards associated with the Project, effects caused by groups, exposure to traffic noise or air pollutants) are obvious aspects to study. In addition, these would concern the commissioning, operation and decommissioning of a Project in relation to workers on the Project and surrounding population.'*

In accordance with this approach to Human Health espoused in the Commission Guidance, this chapter addresses human health in the context of other factors addressed elsewhere in further detail within this EIA where relevant. Relevant factors identified include inter alia water, air quality, noise and the risk of major accidents and disasters.

The insight provided by the IEMA high level primer document (2017) has also been considered in the preparation of this chapter. The IEMA document posits that human health spans environmental, social and economic aspects and does not merely represent an absence of disease. A broad conception of human health is put forward, that should encompass factors such as local economy and community, rather than relying on a narrower focus on biophysical health factors and determinants. In this regard, this chapter seeks to address population and human health in a holistic manner, including consideration of economic factors, settlement patterns, landscape and visual impact, and land-use.

The 2018 EIA Guidelines published by the DHPLG state that there is a close interrelationship between the SEA Directive and the 2014 Directive. The Guidelines state that the term 'Human Health' is contained within both of these Directives, and that a common interpretation of this term should therefore be applied.

To establish the existing receiving/ baseline, several site visits were undertaken to appraise the location and likely and significant potential impact upon human receptors of this proposed development. A desk-based study of published reference documents such as Central Statistics Office Census Data, the ESRI Quarterly Economic Commentary, the Regional and Economic Strategy for the Eastern and Midlands Regional Assembly and the Fingal Development Plan 2017 – 2023 was also carried out in preparing this EIA and completed in December 2022.

It should be noted that there are numerous inter-related environmental topics described throughout this EIA document which are also of relevance to Population and Human Health. Issues such as the potential likely and significant impacts of the proposed development on townscape and visual impact, daylight and sunlight, archaeology, and cultural heritage, air quality and climate, noise and vibration,

water, land and soils, microclimate, material assets including traffic and transport impacts, are of intrinsic direct and indirect consequences to human health. For detailed reference to particular environmental topics please refer to the corresponding chapter of the EIAR and other accompanying application reports.

The 2022 Guidelines on the information to be contained in environmental impact assessment reports, published by the EPA states that *'in an EIAR, the assessment of impacts on Population & Human Health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g. under the environmental factors of air, water, soil, etc.'*

This chapter of the EIAR document focuses primarily on the potential likely and significantly impact on Population, which includes Human Beings and Human Health in relation to health effects/issues and environmental hazards arising from the other environmental factors. Where there are identified associated and inter-related potential likely and significant impacts which are more comprehensively addressed elsewhere in this EIAR document for a more detailed assessment.

### **5.2.1 ASSESSMENT OF SIGNIFICANCE & SENSITIVITY**

The assessment of significance is a professional appraisal based on the sensitivity/significance of the existing environment of the receptor and the Description of effect which may depend upon the Character, Magnitude, Duration, Probability or Consequence. Within any area, the sensitivity of individuals in a population will vary. As such, it would be neither representative of the population, nor a fair representation of the range of sensitivities in a population, were an overall sensitivity classification assigned to the population in question. As such, the precautionary principle has been adopted for this assessment, which assumes that the population within the study area is of a uniformly high sensitivity.

### **5.2.2 DETERMINING SIGNIFICANCE**

Figure 5.1 demonstrates how the significance of an impact may be determined by comparing the magnitude of an effect to the sensitivity of the receiving environment.



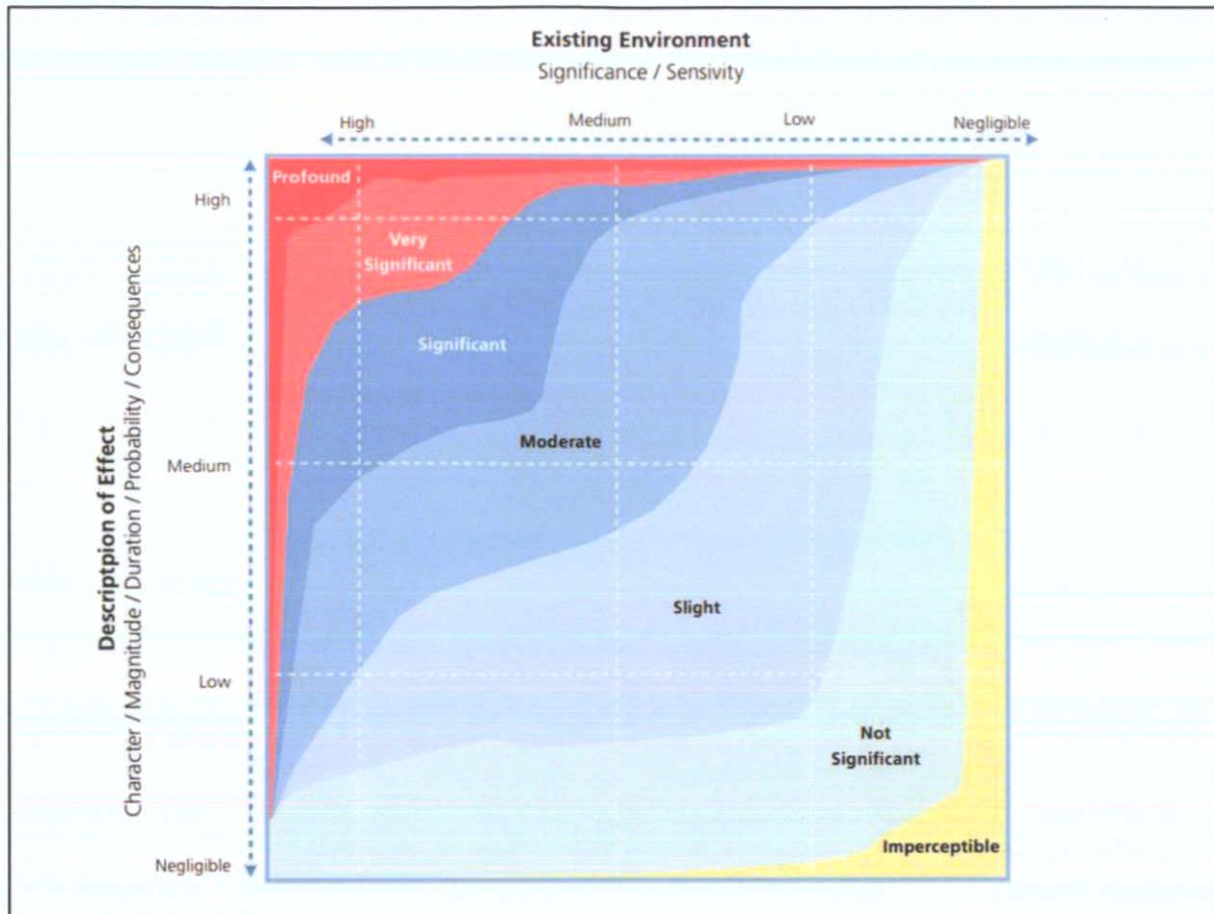


Figure 5.1 Significance Determining Scale (EPA EIA Guidelines 2022).

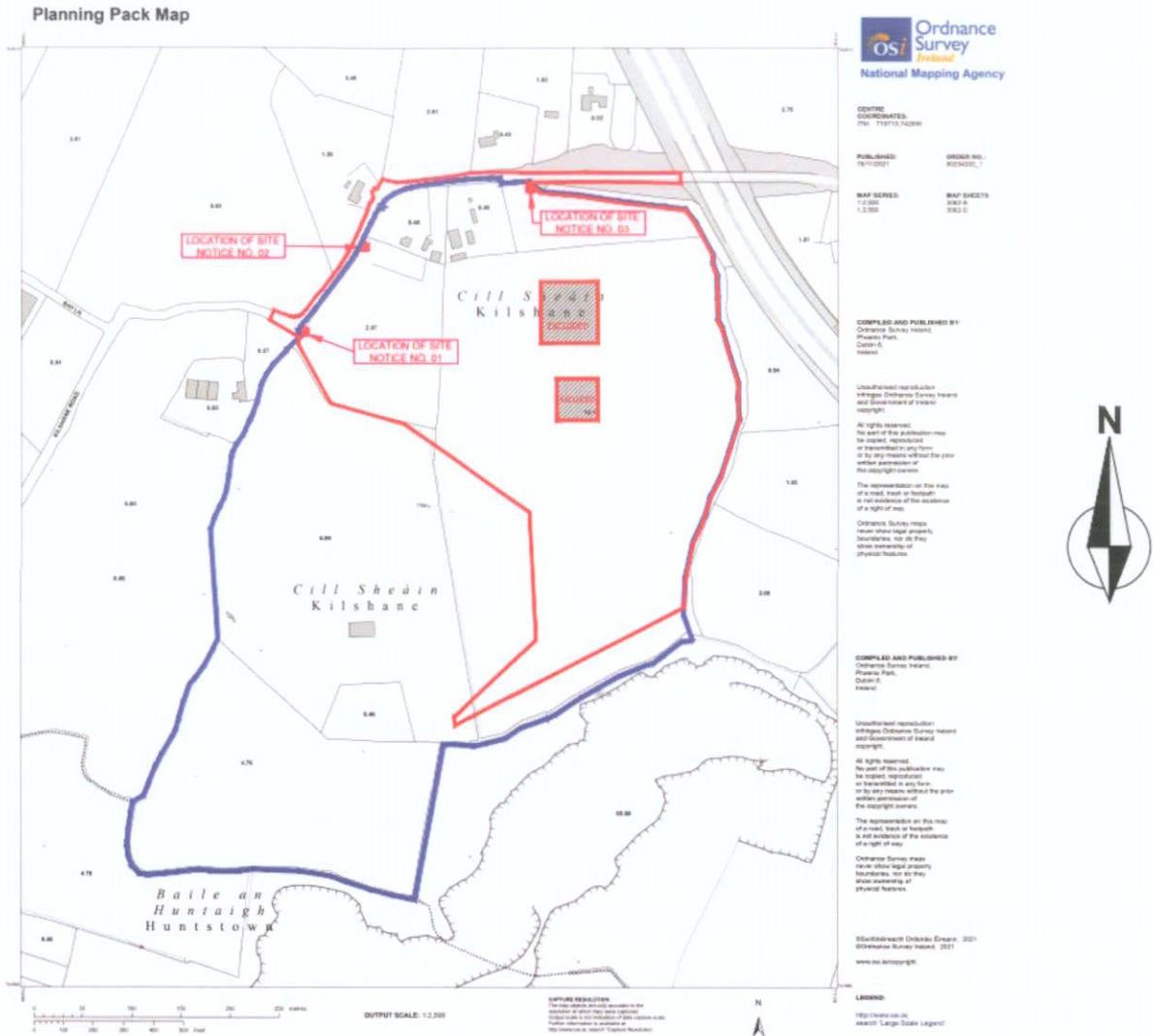
There are seven generalised degrees of effect significance that are commonly used in EIA: **Imperceptible, Not Significant, Slight, Moderate, Significant, Very Significant and Profound.**

### 5.3 RECEIVING ENVIRONMENT

The subject site is located on lands at Kilshane Road, Kilshane, Finglas, Dublin 11. The area of the subject site within the designated red line boundary extends to c. 13.56 Ha. The overall landholding within the designated blue line boundary extends to c. 28.56 Ha. The subject site is located north-west of the M50 and on the western side of the N2 and the R135. The subject site is currently accessed via Kilshane Road which forms part of the north and northwest boundary of the site.

The surrounding area is characterised by agricultural fields and Industrial uses such as logistics, power stations, and additional business park operations. Roadstone Huntstown Quarry and Huntstown Power Station are located on lands to the immediate south and the subject site and the site is located to the east and north of Ballycoolin and Rosemount Industrial Estates.

The subject site consists mostly of green fields which are bounded by established hedgerows and trees, most of which are to be preserved and augmented with additional planting as part of this planning application. A small portion of the subject lands currently accommodate 1 no. dwelling with associated farming outbuildings in the north-west corner of the site which are to be demolished to facilitate the development. These lands are accessed via Kilshane Road through a residential entrance.



**SITE LOCATION MAP**

**Figure 5.2 Extract from the Site Location Map, showing the Application Site outlined in red**

**5.3.1 STUDY AREA**

The 'Study Area' selected for the assessment of the impact on the demographic profile and human health as a result of the Proposed Development was defined as the Electoral Divisions (ED) of The Ward (ED 4041), Dubber (ED 4020), Finglas North A (ED 2051), Finglas North B (ED 2052), Finglas North C (ED 2053), Ballymun A (ED 2015) and Blanchardstown-Abbotstown (ED 4008).

**5.4 THE EXISTING ENVIRONMENT**

**5.4.1 POPULATION & DEMOGRAPHICS**

The most recent Census of population was carried out by the CSO on the 3<sup>rd</sup> of April, 2022. At the time writing, Census 2022 Preliminary Results, published in June 2022 were available. The previous Census was completed on the 24<sup>th</sup> of April, 2016 and before that on 10<sup>th</sup> of April, 2011. The census compiles data for the whole state as well as smaller individual areas including counties, cities, towns, and electoral divisions. Taking into consideration the location of the proposed development, the census information on population, age profile, employment, and social class, has been analysed in relation to the development site.

Table 5.1 denotes the population change for the State, Fingal and Electoral Districts for the census years 2011 and 2016 and from 2016-2022. The 2011 and 2016 census data showed that the population surrounding the development site grew by 16.5% between the years 2011 and 2016 compared with only 3.8% nationally and 8% in the County Fingal area. The average rate of population growth across the study area was 14.4 %.

The 2022 preliminary census data results show a more significant increase in population nationally of 7.6% since 2016. This is also the highest population recorded in a census since 1841. This was also consistent with the population growth experienced in the County Fingal area between 2016 – 2022 at 8 %. The 2016 – 2022 census data showed that the population surrounding the development site grew by 37.9% between these years. The average rate of population growth across the study area was 11.8%

**Table 5.1 Population change at national, primary, and secondary hinterland level.**

Area	2011	2016	% Change 2011-2016.	2022	% Change 2016-2022.
<b>State</b>	4,588,252	4,761,865	<b>+3.8 %</b>	5,123,536	<b>+ 7.6 %</b>
<b>Fingal</b>	273,991	296,020	<b>+ 8%</b>	329,218	<b>+8 %</b>
<b>The Ward</b>	8,241	9,602	<b>16.5 %</b>	13,242	<b>+ 37.9 %</b>
<b>Dubber</b>	6,359	7,372	<b>15.9 %</b>	8,812	<b>+ 19.5 %</b>
<b>Finglas North A</b>	3,227	3,319	<b>2.9 %</b>	3,124	<b>-5.9 %</b>
<b>Fingal North B</b>	2,809	2,874	<b>2.3 %</b>	2,893	<b>+ 0.7 %</b>
<b>Finglas North C</b>	3,247	3,464	<b>6.7 %</b>	3,670	<b>+ 5.9 %</b>
<b>Ballymun A</b>	3,678	4,765	<b>29.6 %</b>	5,649	<b>+ 18.6 %</b>
<b>Blanchardstown-Abbotstown</b>	4,870	6,195	<b>27.2 %</b>	6,573	<b>+ 6.1 %</b>

### 5.4.2 AGE PROFILES

The age profile of the population in the area is an important parameter as it provides a good insight into the potential labour force, the demand for schools, amenities, other facilities, and the future housing demand. The 2022 Census preliminary results do not yet provide a breakdown of age profile and as such the age profile of population surrounding the development was assessed using 2016 census data.

Table 5.2 shows the age profiles Nationally for 2016.

**Table 5.2 Age profile at National and County level 2016<sup>6</sup>**

Area	0-12	13-18	19-24	25-44	45-64	65+	Total Persons
<b>State</b>	18 %	8 %	7%	30%	24%	13%	4,761,865
<b>The Ward</b>	30 %	7%	5%	43 %	13%	2%	9,602
<b>Dubber</b>	25 %	6%	6%	48%	13%	3%	7,372
<b>Finglas North A</b>	17 %	9%	10%	27%	25%	12%	3,319
<b>Fingal North B</b>	16 %	9%	9%	24%	28%	15%	2,874
<b>Finglas North C</b>	17 %	6%	7%	30%	26%	15%	3,464
<b>Ballymun A</b>	21 %	8%	7%	42%	16%	6%	4,765
<b>Blanchardstown-Abbotstown</b>	22 %	6%	5%	45%	14%	9%	6,195

The age profile of the population in the area is an important parameter as it provides a good insight into the potential labour force, the demand for schools, amenities, other facilities, and the future housing demand. The 2022 Census preliminary results do not yet provide a breakdown of age profile and as such the age profile of population surrounding the development was assessed using 2016 census data. Table 5.2 shows the age profiles Nationally for 2016.

<sup>6</sup> Source: [www.cso.ie](http://www.cso.ie))

### 5.4.3 EMPLOYMENT

The 2022 Census preliminary results do not yet provide information on employment and as such relevant the area has been assessed using 2016 Census data. Table 5.3 presents the employment statistics in 2016 compared with 2011. The data shows that unemployment decreased significantly in the County, as well as nationally, reflecting the economic recovery in recent years.

**Table 5.3 Employment statistics Nationally and at County level in 2011 and 2016<sup>7</sup>**

	At Work	Seeking First Regular Job	Unemployed Lost/given up previous job	Total Labour Force	% Unemployment
<b>2011 LABOUR FORCE</b>					
<b>State</b>	1,807,360	34,166	390,677	2,232,203	19.03
<b>Fingal County</b>	184944	2224	20416	207584	9.8
<b>The Ward</b>	3,781	76	675	4,532	16.57
<b>Dubber</b>	3,207	40	581	3,828	16.22
<b>Finglas North A</b>	942	39	483	1,464	35.66
<b>Fingal North B</b>	839	30	343	1,212	30.78
<b>Finglas North C</b>	1,318	24	382	1,624	18.84
<b>Ballymun A</b>	1,493	47	489	2,029	17.71
<b>Blanchardstown-Abbotstown</b>	2,225	62	417	2,704	17.71
<b>2016 LABOUR FORCE</b>					
<b>State</b>	2,006,641	31,434	365,962	2,304,037	12.91
<b>Fingal County</b>	207992	1850	13565	223407	6.07
<b>The Ward</b>	4,418	70	508	4,996	11.57
<b>Dubber</b>	1,168	36	484	4,279	12.25
<b>Finglas North A</b>	1,168	36	439	1,643	28.91
<b>Fingal North B</b>	1,024	34	271	1,329	22.95
<b>Finglas North C</b>	1,539	18	205	1,762	12.66
<b>Ballymun A</b>	2,059	53	449	2,561	19.60
<b>Blanchardstown-Abbotstown</b>	2,956	51	381	3,388	12.75

Statistic	Age Group	County and City	Socio Economic Group	Labour Force	Census Year	VALUE
<b>Population Aged 15 Years and Over 2011 to 2016</b>	All ages	Fingal	All socio-economic groups	Persons at work	2016	133971
<b>Population Aged 15 Years and Over 2011 to 2016</b>	All ages	Fingal	A. Employers and managers	Persons at work	2016	25170
<b>Population Aged 15 Years and Over 2011 to 2016</b>	All ages	Fingal	B. Higher professional	Persons at work	2016	11336

<sup>7</sup> Source: www.cso.ie)

Statistic	Age Group	County and City	Socio Economic Group	Labour Force	Census Year	VALUE
Population Aged 15 Years and Over 2011 to 2016	All ages	Fingal	C. Lower professional	Persons at work	2016	21430
Population Aged 15 Years and Over 2011 to 2016	All ages	Fingal	D. Non-manual	Persons at work	2016	35962
Population Aged 15 Years and Over 2011 to 2016	All ages	Fingal	E. Manual skilled	Persons at work	2016	9293
Population Aged 15 Years and Over 2011 to 2016	All ages	Fingal	F. Semi-skilled	Persons at work	2016	10194
Population Aged 15 Years and Over 2011 to 2016	All ages	Fingal	G. Unskilled	Persons at work	2016	3949
Population Aged 15 Years and Over 2011 to 2016	All ages	Fingal	H. Own account workers	Persons at work	2016	6278
Population Aged 15 Years and Over 2011 to 2016	All ages	Fingal	I. Farmers	Persons at work	2016	680
Population Aged 15 Years and Over 2011 to 2016	All ages	Fingal	J. Agricultural workers	Persons at work	2016	516
Population Aged 15 Years and Over 2011 to 2016	All ages	Fingal	Z. All others gainfully occupied and unknown	Persons at work	2016	9163

The 2016 census data shows that the majority of people in employment in the Fingal County Council (FCC) area are in 'Non-Manual' employment (27%) with the least represented social class being 'Agricultural Workers' at (0.38%). At a local level, the dominant social class in the Ward Electoral Division is 'Employers and Managers' labour (28%) with 'Agricultural Workers' being the lowest representative (0.5%).

### 5.4.4 LABOUR FORCE SURVEY

The Labour Force Survey (LFS) is a large-scale, nationwide survey of households in Ireland carried out every three months. It generates labour force estimates which include the official measure of employment and unemployment for the state. The results Nationally for Q2 2022 showed that there were 2,554,600 no. people employed (figure estimate adjusted for Covid-19) in the State with the monthly figures showing 233,100 no. people registered as unemployed. This represents a c. 5.2% increase in employment between Q1 2022 and Q2 2022 (figure estimate also adjusted for Covid-19).

### 5.4.5 EMPLOYMENT

The 2022 Census preliminary results do not yet provide information regarding education and as such the area was assessed using 2016 census data. Census data presenting the highest level of education completed by people living in the Study Area community and Fingal County is presented in Table 5.4. The data show that there are higher levels of educational attainment in the Study Area than in Fingal County.

**Table 5.4 Highest level of education completed locally and at County level in 2016 for key educational levels.**

(Source: [www.cso.ie](http://www.cso.ie))

area	no formal education	primary education	secondary <sup>8</sup>	higher education <sup>9</sup>	undergraduate degree <sup>10</sup>	postgraduate degree <sup>11</sup>	total persons
<b>highest level of education in 2011</b>							
Fingal	1,697	13,548	59,450	34,426	34,625	17,504	161,250
the ward	28	174	1,315	1,050	1,018	440	4,025
dubber	25	233	1,197	988	770	341	3,564
finglas north a	64	609	893	229	68	22	1,885
finglas north b	49	536	775	205	89	24	1,678
finglas north c	33	467	880	437	252	97	2,166
ballymun a	47	388	889	344	321	100	2,089
blanchardstown -abbotstown	63	239	728	501	780	367	2,678
<b>highest level of education in 2016</b>							
Fingal	1,996	11,961	56,037	36,890	39,094	22,024	168,002
the ward	42	157	1,243	1,043	1,050	483	4,018
dubber	28	201	1,097	958	771	324	3,379
finglas north a	69	549	901	330	102	38	1,989
finglas north b	58	422	799	299	112	33	1,723
finglas north c	40	381	867	480	340	414	2,249
ballymun a	60	338	910	466	349	161	2,284
blanchardstown -abbotstown	79	282	774	581	899	558	3,173

**Note:** the table presents key milestone education levels and excludes lower secondary, technical, or vocational qualification, advanced certificate/completed apprenticeship, higher certificate, ordinary bachelor's degree / national diploma, Ph.D./higher or where information was not stated.

### 5.4.6 DEPRIVATION

Deprivation in small areas is mapped using the Pobal HP Deprivation Index. This Index draws on data from censuses and combines three dimensions of relative affluence and deprivation: Demographic Profile, Social Class Composition and Labour Market Situation. The 2022 Census preliminary results do not yet provide information regarding deprivation and as such the area was assessed using 2016

<sup>8</sup> Lower secondary and Upper secondary

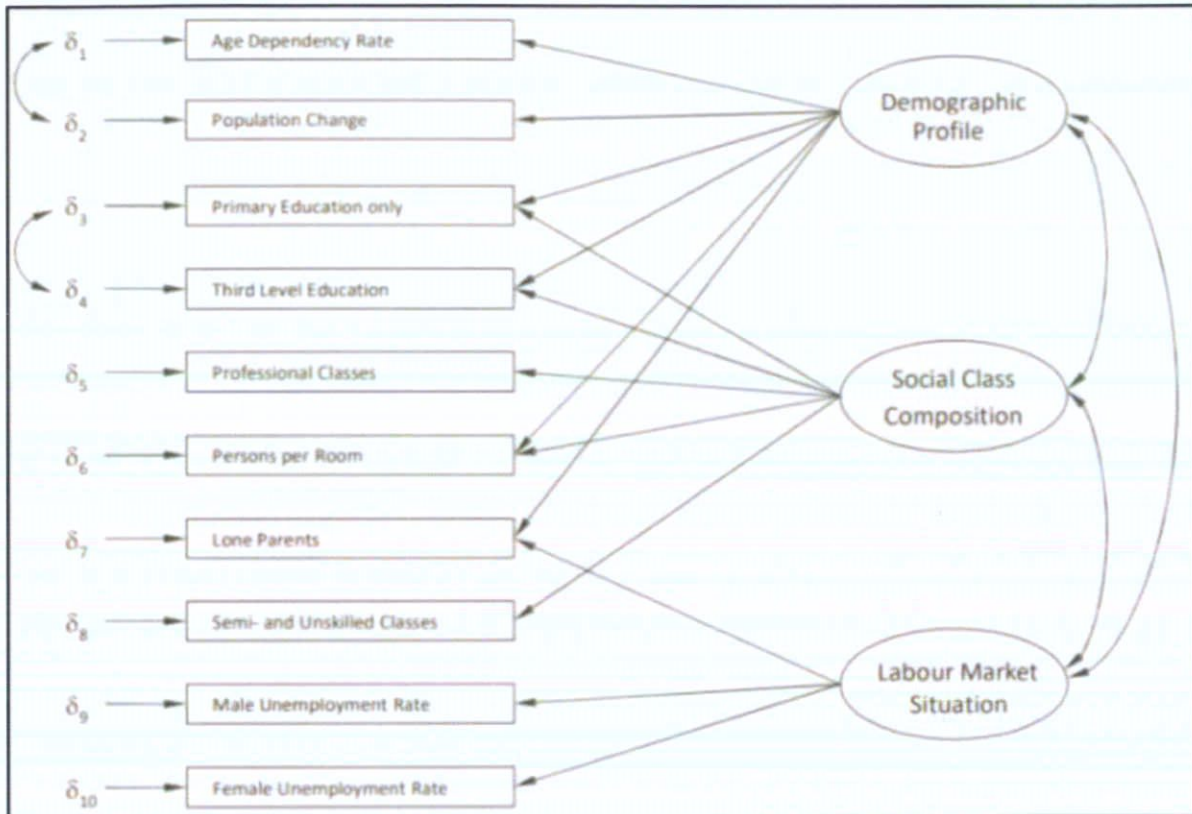
<sup>9</sup> Higher Certificate, Advanced certificate/completed apprenticeship, or Technical/vocational training

<sup>10</sup> Ordinary Bachelor Degree, Honours bachelor degree/professional qualification

<sup>11</sup> Postgraduate degree or PhD

census data. Figure 5.3 below shows graphical representation of how the concepts of Demographic Growth, Social Class Composition and Labour Market Situation are measured by ten key socio-economic indicators from the Census of Population.

In this EIAR, the Relative Index Score is considered as the measure for deprivation, as these Relative Index Scores are rescaled such that the mean is 0 and standard deviation is 10 at each census wave. This allows for the provision of descriptive labels with the scores, which are grouped by standard deviation as seen in Table 5.5 below.



**Figure 5.3 Growth, Social Class Composition, and Labour Market Situation are measured by ten key socio-economic indicators from the Census of Population.**

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**Table 5.5 Pobal HP Index Relevant Index Score labels<sup>12</sup>**

Relative Index Score	Standard Deviation	Label
> 30	> 3	Extremely affluent
20 – 30	2 – 3	Very affluent
10 – 20	1 – 2	Affluent
0 – 10	0 – 1	Marginally above average
0 – -10	0 – -1	Marginally below average
-10 – -20	-1 – -2	Disadvantaged
-20 – -30	-2 – -3	Very disadvantaged
< -30	< -3	Extremely disadvantaged

The data in Table 5.6 shows the Pobal HP Index Relevant Index Score Figures for Co. Dublin and the Electoral Divisions across the study area (Source: Pobal HP Deprivation Index).

The area surrounding the development site (The Ward) is classified as "*Marginally Above Average*" which is consistent with Co. Dublin and the adjoining "*Dubber*" Electoral Division. However, remaining areas across the study area are mostly classified as either "*Disadvantaged*" or "*Marginally Below Average*", including Finglas North A, Finglas North B, Finglas North C, Ballymun A and Blanchardstown-Abbottstown.

**Table 5.6 Pobal HP Index Relevant Index Score Figures at a Local and County level<sup>13</sup>**

Area	Relative Index Score	Pobal HP Description 2016
<b>County Dublin (including Fingal)</b>	4.12	Marginally above average
<b>The Ward</b>	7.81	Marginally above average
<b>Dubber</b>	5.11	Marginally above average
<b>Finglas North A</b>	-16.64	Disadvantaged
<b>Finglas North B</b>	-14.40	Disadvantaged
<b>Finglas North C</b>	-2.48	Marginally Below Average
<b>Ballymun A</b>	-2.49	Marginally Below Average
<b>Blanchardstown-Abbottstown</b>	7.25	Marginally Below Average

## 5.4.7 HEALTH

The '*Irish Health Survey 2019*' was carried out by the Health Service Executive (HSE) as part of an EU wide health survey. A summary of the main findings included: -

- *Affluent people are more likely to feel their health status is Very good or good than people who are disadvantaged - 92% of Very affluent persons compared to 78% of persons who are Very disadvantaged.*
- *Over a quarter of persons aged 15 years and over report having a long lasting condition, with older persons reporting higher levels.*

<sup>12</sup> Source: Pobal HP Deprivation Index

<sup>13</sup> Source: Pobal HP Deprivation Index)



- Majority of persons (82%) report no limitations in everyday activities due to a health problem.
- Over a fifth (21%) of Unemployed persons report some form of mental ill-health compared to 9% of those In employment.
- Prevalence of hospital in-patient admissions rises with age and disadvantage level.
- In general, females and older people more likely to use a preventive health service.
- Physical activity declines with age and relative disadvantage level.
- Younger persons more likely to drink 6 or more units of alcohol in one sitting.
- Over half of persons aged 15 years and over in the State are overweight or obese.<sup>14</sup>

#### 5.4.8 MAJOR ACCIDENTS & HAZARDS

The Seveso Directive (Directive 82/501/EEC, Directive 96/82/EC, Directive 2012/18/EU) was developed by the EU after a series of catastrophic accidents involving major industrial sites and dangerous substances. Such accidents can give rise to serious injury to people or serious damage to the environment, both on and off the site of the accident.

The Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015) (the "COMAH Regulations"), implement the latest Seveso III Directive (2012/18/EU).

The Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015 (S.I. 209 of 2015) (COMAH Regulations 2015) sets out quantities of dangerous substances for which lower and upper tier COMAH status apply. For gas oils (including diesel fuels, home heating oils and gas oil blending streams) the qualifying quantity for the application of lower tier requirements is 2,500 tonnes and for upper tier requirements it is 25,000 tonnes. Therefore, the proposed power plant will be classified as a lower tier COMAH establishment.

The purpose of the COMAH Regulations is to transpose the Seveso Directive into Irish law and lay down rules for the prevention of major accidents involving dangerous substances, and to seek to limit as far as possible the consequences for human health and the environment of such accidents, with the overall objective of providing a high level of protection in a consistent and effective manner.

A COMAH Regulations report has been prepared in respect of the proposed development as part of this planning application. Please refer to this report for further information.

There are also a number of IEL and IPPC facilities located in the wider study area. These are referred to as follows:

- *Huntstown Quarry is a licensed inert waste recovery facility operating under license number W0277-03 issued in 2015. (1.2km)*
- *The Huntstown Power Station campus these are; Viridian Power Limited (P077-02) Licence issued in 2006, and Huntstown Power Company (P0483-04) Licence issued in 2006. (1.4km)*
- *Lagan Material Limited, Rosemount Business Park, Ballycoolin Road, Blanchardstown, Dublin 11 (P0081-2). (2.5km).*

#### 5.4.9 SOCIAL INFRASTRUCTURE

In respect of social infrastructure the following areas have been assessed in the preparation of this chapter;

- Local Businesses.
- Residential Areas.
- Educational Facilities.
- Health Services. Emergency Services.

<sup>14</sup> Irish Health Survey 2019, Summary of Key Findings.

## 5.4.10 BUSINESSES

The surrounding area is characterised by a variety of energy, industrial, commercial, quarrying, agricultural and residential uses. Huntstown Quarry is located in the vicinity of the subject site (c. 2.9 km) together with Huntstown Power Station (c. 2.4 km) and an Anaerobic Digestion Plant (c. 2.2 km). The Dublin Airport's Logistics Park is located to the southeast of the subject site (c.1.2 Km). In addition, Beech Vista M50 Garden and Paving Centre, MCD Home and Garden, Gardenrooms.ie, Woodkraft and NPP Group are located within the vicinity of the subject site.

## 5.4.11 RESIDENTIAL DWELLINGS

The nearest noise sensitive locations are located to the North of the site in the form of several private residences (c. 165 m).

## 5.4.12 EDUCATION FACILITIES

There is 1 no. educational facility within 2km of the proposed development as follows;

- St. Margaret's National School– c. 1.5km northeast of the subject site.

## 5.4.13 HEALTH SERVICES

National Orthopaedic hospital Cappagh is located c. 5.2km south of the site. Connolly Hospital Blanchardstown is located c. 7.8 km southwest of the site.

## 5.4.14 EMERGENCY SERVICES

The Finglas Garda Station and Finglas Fire Station are both located c. 4.6 km from the subject site

# 5.5 CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

Planning permission is being sought by Kilshane Energy Ltd. for the construction of a Gas Turbine Power Generation Station with an output of up to 293 Megawatts at this site address: Kilshane Road, Kilshane, Finglas, Dublin 11. The proposed development will consist of the following;

1. *The construction of a new Gas Turbine Power Generation Station with an output of up to 293 Megawatts. The proposed station will consist of 1 no. Gas Turbine and 1 no. 28 m high Exhaust Stack partially enclosed by a 12 m high acoustic wall. 1 no. single storey Admin Building and Warehouse (c. 926 m<sup>2</sup>), 1 no. single storey Packaged Electronic/Electrical Control Compartment (PEECC) (c. 72 m<sup>2</sup>), 1 no. single storey Continuous Emission Monitoring System (CEMS) Shelter (c. 14.8 m<sup>2</sup>), 1 no. 16.2m high x ø24.4m Fuel Oil Tank, 1 no. 15.3m high x ø9.2m Raw/Fire Water Tank, 1 no. 16.2m high x ø18.3m Demin Water Tank, and miscellaneous plant equipment.*
2. *The demolition of a detached residential dwelling (c. 142 m<sup>2</sup> GFA) and associated farm buildings (c. 427 m<sup>2</sup> GFA) located in the north west corner of the subject site to facilitate the proposed development.*
3. *Road improvement works to 493.34 m Kilshane Road (L3120), including the realignment of a portion of the road (293.86 m) within the subject site boundary and the provision of new footpaths, off-road cycle ways, together with the construction of a new roundabout linking the proposed realignment of Kilshane Road back to the existing road network to the northeast of the subject site and to the proposed internal road network to serve the proposed development.*
4. *The construction of entrance gates, low wall and railings fronting the realigned Kilshane Road and a private internal road network providing for vehicular, cyclist and pedestrian access to serve the development. Construction of 3 m high security fencing within development.*

5. Total provision of 26 no. car parking spaces including 1 no. disabled persons parking space and 2 no. EV electrical charging points.
6. Provision of security lighting columns to serve the development and the installation of Closed-Circuit Television System (CCTV) for surveillance and security purposes.
7. Provision of 20 no. sheltered bicycle parking spaces.
8. Provision of hard and soft landscaping works, tree planting and boundary treatments including 3 m high security fence along Kilshane Road and the perimeter of the subject site boundary.
9. Provision of new on-site foul sewer pumping station to serve the development.
10. Provision of underground surface water attenuation areas to serve the development.
11. All associated site development and excavation works, above and below ground, necessary to facilitate the development.

An Environmental Impact Assessment Report has been prepared in respect of the proposed development. A Gas-Insulated Switchgear Substation (GIS), Air Insulated Switchgear Substation (AIS) and grid connection to serve the development is subject to a separate Strategic Infrastructure Development (SID) Application.

## 5.6 POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT

### 5.6.1 LAND, SOILS, GEOLOGY, HYDROGEOLOGY

A full assessment of Land, Soils, Geology & Hydrogeology has been undertaken in Chapter 7 of this EIAR.

#### 5.6.1.1 Construction phase

The risk of impact from land, soils, geology and hydrogeology upon the local and regional environment during the construction phase in terms of excavation and infilling in addition to accidental spills and leaks is likely to be short-term, slight and negative. The effect is considered to be 'slight' due to the fact that there will not be intervention on the geological and hydrological regime on a local or regional scale. Moreover, the effects during the construction stage on the loss of agricultural land is recognised as a local loss of agricultural soil. However, the area of development is small in the context of the overall agricultural land available in the region. The majority of the land is zoned for development. Within the overall context of Ireland's available farmland, the loss is negligible. There will be no impact to mineral resources in the area as a result of the proposed development. Please refer to section 7.4.1 for more details.

#### 5.6.1.2 Operational Phase

In terms of land, soils, geology and hydrogeology associated with the proposed development, it has been identified in chapter 7 section 7.4.2 that in the absence of mitigation the effect on the geological and hydrogeological environments is likely to be long-term, slight and negative. The effect is considered to be 'slight' because there will not be intervention on the geological and hydrological regime on a local or regional scale.

### 5.6.2 WATER & HYDROLOGY

A full assessment of Water and Hydrology has been undertaken in Chapter 8 of this EIAR

#### 5.6.2.1 Construction Phase

The risk of increased sediments loading in the run off and accidental spills and leaks may potentially occur. Chapter 8 has set out the assessment of potential impacts of the proposed development during the construction phase related to water and hydrology. As such, the potential for increased sediments, loading and run off is short-term, moderate and negative in the absence of a mitigation

plan. Moreover, during the construction stage there is a risk of accidental spills and leaks. However, as determined within chapter 8, Section 8.4.1.2 of this EJAR, in the absence of mitigation, the effect on the local and regional hydrological environment is likely to be short-term, significant and negative. It is considered significant due to the potential for accidental leakage to affect the receiving waters (Huntstown Stream and River Ward) and degrade the current water body status (chemically, ecological and quantity) or its potential to meet the requirements and/or objectives in the second RBMP 2018 – 2021 (River Basin Management Plan) and draft third RBMP 2022 - 2027

#### **5.6.2.2 Operational Phase**

During the operational stage, it is considered that any effects of direct or indirect discharges in the absence of mitigation, is likely to be long-term, imperceptible and neutral. The effect is considered to be 'imperceptible' because there will not be intervention on the hydrological regime on a local or regional scale due to the design measures included in the surface water and foul water drainage as set out in the appropriate sections of this EJAR. Furthermore, operational phase accidental spillage or leaks are determined to be; in the absence of mitigation, likely to be long-term, imperceptible and neutral. The effect is considered to be 'imperceptible' because there will not be intervention on the hydrological regime on a local or regional scale due to the design measures outlined in the relevant sections of chapter 8.

### **5.6.3 AIR QUALITY & CLIMATE**

In relation to Air Quality, the likely impacts to Human Health as a result of the proposed development are detailed in Chapter 9 of this EJAR

#### **5.6.3.1 Construction Phase**

The risk of impact from dust and particulates upon human receptors during the construction phase has been classed as negligible - low for the following activities: Demolition, Earthworks, Construction and Track Out as a result of proposed activities. Furthermore, Chapter 9, Section 9.4.2.1 of this EJAR has determined that *'the construction stage traffic will have an imperceptible neutral and short-term impact on air quality'*.

#### **5.6.3.2 Operational Phase**

The impact from NO<sub>2</sub>, CO, SO<sub>2</sub> and PM<sub>10</sub> from the proposed development emissions has been assessed through a modelling assessment based on the proposed development. The impacts have found that ambient concentrations of the NO<sub>2</sub>, CO, SO<sub>2</sub> and PM<sub>10</sub> due to emissions from the gas turbine, scheduled testing of the turbine in liquid fuel mode and emergency operations of the turbine on liquid fuel are below the air quality limit values. In accordance with the EPA Guidelines the impacts of the proposed development are predicted to be long-term, negative and imperceptible.

### **5.6.4 NOISE & VIBRATION**

A full assessment of Noise and Vibrations has been undertaken in Chapter 10 of this EJAR.

#### **5.6.4.1 Construction Phase**

The risk of impact from noise and vibrations upon human receptors during the construction phase has been investigated in chapter 10 of this EJAR. Construction Noise, vibration and traffic has been assessed in this chapter. Arising in the findings, we can confirm that the effects of construction noise and vibration are negative, not significant, and short-term. In addition, traffic noise levels on the local road network, due to the construction phase, will not result in a significant noise impact

#### **5.6.4.2 Operational Phase**

In terms of noise associated with the operation of the site, the associated effect is stated to be negative, imperceptible to slight and long-term.

Moreover, there are no sources of vibration associated with the operation of the development will give rise to impacts at nearby noise sensitive locations. In terms of these the operational phase of the development the associated vibration effect is stated to be neutral, imperceptible and long-term.

### **5.6.5 EMPLOYMENT**

There is an opportunity to employ local people and contractors during the construction stage of this project. There will be no direct employment opportunities created as a result of the operational phase of the project

#### **5.6.5.1 Construction Phase**

With regard to the construction phase, levels of employment will vary throughout the construction period. Local Businesses will also benefit from the opportunity to supply materials and plant equipment during the construction phase which will represent a significant capital investment. The impact would therefore, likely to be moderate Beneficial during construction.

#### **5.6.5.2 Operational Phase**

There will be a high level of automation in the proposed development with all processes controlled from a central control room. During the operational phase, the proposed development will be operated, maintained and managed by a suitably qualified and trained personnel. The impact would therefore, like to be minor beneficial during operation.

### **5.6.6 POPULATION**

#### **5.6.6.1 Construction Phase**

The proposed development would negligible impact upon the regional population of Fingal and Dublin City. However, a temporary increase in the number of workers during the construction may require employees to stay within the vicinity of the subject site, it is not expected this would have adverse impact, rather it may have a beneficial impact of goods and services providers.

#### **5.6.6.2 Operational Phase**

The proposed development would not have an impact upon the local or regional population during the operation of the proposed development. Due to a projected increase in population, the proposed development would likely bring beneficial impacts in terms of a reliable power supply when required in the future. This is pertinent due to the RSES Plan for compact growth in urbanised areas of Dublin City and Suburbs, Regional Centres and Key Towns in the Eastern and Midlands Region

### **5.6.7 HEALTH & SAFETY**

The proposed development will be implemented in accordance with the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005) as amended and the Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. 299 of 2007) as amended and associated regulations.

The proposed development has the potential for an impact on the health and safety of workers employed on the site, particularly during the construction phase. The activities of contractors during the construction phase will be carried out in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013) as amended to minimise the likelihood of any impacts on worker's health and safety.

The Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022), require that the vulnerability of the project to major accidents and/or natural disasters (such as earthquakes, landslides, flooding, sea level rise etc.) is considered in the EIA Report.

The site has been assessed in relation to the following external natural disasters; landslides, seismic activity, volcanic activity, and sea level rise/flooding as outlined below. The potential for major

accidents to occur at the development has also been considered with reference to Seveso/Control of Major Accident Hazards (COMAH) Regulations.

Due to the proximity to the Huntstown Power Station that is notified to the Health and Safety Authority (HSA) as a Lower Tier COMAH site. A Land Use Planning (LUP) Assessment under the COMAH directive has been prepared by AWN and is included as part of this planning application.

The following is concluded for the individual risk arising from the proposed development:

- The maximum level of individual risk on-site is  $6 \times 10^{-6}$  per year and the maximum level of individual risk off-site is  $5 \times 10^{-6}$  per year.
- The risk contours corresponding to the Outer LUP zone extend over the site boundary to the east but do not extend to the N2 Primary Road. This area is typically unoccupied.
- The maximum level of risk at any off-site receptor location is less than the maximum tolerable risk to a member of public ( $1 \times 10^{-6}$  per year) and less than the maximum tolerable risk to a person at an off-site location ( $5 \times 10^{-6}$  per year).

**It is concluded that the level of individual risk on and off-site is acceptable.**

In addition, the subject lands have been analysed for risks from tidal flooding from the Irish Sea and local ditch systems, pluvial flooding, ground water and failures of mechanical systems. The various sources of flooding have been reviewed, and the risk of flooding from each source has been assessed. Where necessary, mitigation measures have been proposed. As a result of the proposed mitigation measures, the residual risk of flooding from any source is low. Please refer to the Flood Risk Assessment prepared by Waterman Moylan Consulting Engineers for further information.

There is limited potential for effects on the receiving environment as a result of minor accidents/leaks of fuel/oils during the construction phase as no bulk fuel storage required. However, the implementation of mitigation measures for management of localised construction equipment leaks set out in Chapters 7 and 8 of this EIA Report will ensure the risk of an accident is low and that the residual effect on the environment is imperceptible.

Once operational, the proposed development will form part of ESB Networks' infrastructure. ESB Networks are the licensed operators of the electricity distribution system in the Republic of Ireland. ESB Networks is responsible for building, operating, maintaining and developing the electricity network and serving all electricity customers across the country. EirGrid is a state-owned body responsible for operating the flow of power on the transmission grid. Both bodies are experienced in the management and operation of the national electricity grid, with appropriate environmental, health and safety management systems in place.

## **5.7 PROPOSED MITIGATION MEASURES**

Mitigation measures are set out in the relevant technical chapters of this EIAR. No additional mitigation has been identified in this chapter. Those technical chapters which include information may affect population of the area are detailed below, with specific reference to mitigation and enhancement sections.

- Chapter 7: Land, Soils, Geology & Hydrogeology, Section 7.5
- Chapter 8 Water & Hydrology, Section 8.5
- Chapter 9: Air Quality & Climate, Section 9.5
- Chapter 10: Noise & Vibration, Section 10.5

### **5.7.1 LAND, SOILS, GEOLOGY & HYDROGEOLOGY**

In order to reduce the impacts on the soil, geological and hydrogeological environment, a number of mitigation measures will be adopted as part of the construction phase and operational phase on site.