

Environmental Impact Assessment Report

Development of 220kV GIS 'Mooretown' Substation and Ancillary Structures

on lands adjacent to Huntstown Power Station, Huntstown, North Road (R135), Finglas, Dublin 11.

Volume 1 – Non-Technical Summary

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NON-TECHNICAL SUMMARY

1.0 INTRODUCTION

This is the non-technical summary of the Environmental Impact Assessment Report (EIAR) prepared by AWN Consulting on behalf of Huntstown Power Company Limited herein referred to as 'the Applicant' to accompany an application to An Bord Pleanála (ABP).

The proposal subject of this planning application forms part of a wider development site, which is under consideration of Fingal County Council for two concurrent applications including the undergrounding of overhead electricity lines (Reg. Ref.: FW21A/0144) and the development of a data centre consisting of two data halls and ancillary structures (Reg. Ref.: FW21A/0151) as described in Chapter 2, Section 2.4).

The proposed development comprises the construction of a 2 storey 220 kV Gas Insulated Switchgear (GIS) substation known as 'Mooretown' comprising switchgear floor, cable pit/entry room, generator room, relay room, battery room, workshop, toilet, store room, mess room, hoist space, stair cores and circulation areas (c.2,068 sqm total gross floor area) with an overall height of c.17m located within an overall EirGrid and Customer compound (c.11,231 sqm in area). Lightning electrodes are attached to the roof of the substation building resulting in an overall height of c.20m. The compound includes 4 no. 220/20 kV transformers, 4 no. 20 kV switchgear buildings and 1 no. 20 kV control room buildings (c.5 m high and c. 35.5 sqm in area each), 220 kV series coil (equipment), fire walls (ranging from c.10 m-12.5 m high), lightning finials and monopoles (c.20 m high). The overall compound is surrounded by a c.2.6 m high palisade fence.

The underground cable (Cable No. 1) will follow a route originating at the proposed Mooretown Substation extending south and then west along the private road connecting the North Road with Huntstown Power Station and Huntstown Quarry. The route terminates at a proposed joint bay on the existing Corduff cable route. The underground cable (Cable No. 2) will follow a route originating at the proposed Mooretown Substation Compound / series coil extending south across the internal road connecting the North Road with Huntstown Power Station and Huntstown Quarry. The route terminates at a proposed joint bay on the existing Finglas cable route. Removal of the redundant sections of the 220 kV Corduff cables and 220 kV Finglas cables serving the existing AIS bay to Huntstown Power Station. The underground cable (Cable No. 3) will follow a route originating at the Mooretown GIS Substation extending south and then west to the adjacent existing ESB Huntstown A AIS station. The route terminates in the ESB Huntstown A AIS Station. The underground cable (Cable No. 4) will follow a route originating at the Mooretown GIS Substation extending south and then west to the adjacent existing Huntstown B AIS station. The route terminates in the ESB Huntstown B AIS Station.

The development includes all associated and ancillary site development and construction works, services provision, drainage works, connections to the substations, all internal road/footpath access routes, landscaping and boundary treatment works, vehicular access onto the private road to the south of the site and provision of 9 no. car parking spaces in the overall compound.



Figure 1.1 *proposed development Lands (Red boundary) (Source: Google Earth)*

While the applicant is Huntstown Power Company Limited, once constructed, the proposed Mooretown GIS building and cable connections will be operated by EirGrid as the transmission system operator (TSO) and owned by ESB Networks as the transmission asset owner (TAO). EirGrid operates the transmission system while ESB Networks carries out construction, maintenance, and repairs under the direction of EirGrid. For this development, EirGrid will operate the proposed 220kV Gas Insulated Switchgear (GIS) substation, remotely from their control centres. However, ESB Networks will carry out all local operations on EirGrid's behalf. EirGrid and ESB Networks are committed to running their businesses in the most environmentally friendly way possible.

Methodology for Preparation of the EIAR

This EIA Report has been developed in accordance with the most relevant guidance, including:

- EIA Directive (2011/92/EU) as amended by EIA Directive (2014/52/EU)
- Planning and Development Act 2000 (as amended)
- Planning and Development Regulations 2001 (as amended)
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning and Local Government, 2018)
- Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2017)
- Guidance on the preparation of the Environmental Impact Assessment Report (European Union, 2017)

- Draft Advice Notes for Preparing Environmental Impact Statements (EPA, 2015)

This report has been laid out using the grouped format structure, the EIA Report examines each environmental aspect in a separate chapter. Each specialist chapter generally covers the following for the construction and operational phases:

- Assessment Methodology;
- Receiving Environment;
- Characteristics of the proposed development;
- Potential Impacts of the proposed development;
- Remedial and Mitigation Measures;
- Predicted Impacts of the proposed development
- Monitoring or Reinstatement; and
- Cumulative Impacts of the proposed development.

The cumulative impact of the development and the potential cumulative impacts of the proposed development with any/all relevant other planned or permitted developments are discussed in each chapter. Chapter 16 of this report shows where Cumulative Impact Assessment, Residual Impacts and Interactions have been identified and how they have been addressed.

Consultation

Consultation has been undertaken with ABP (ABP-306723-20) and ABP have confirmed that the proposed development falls within the scope of section 182A of the Planning and Development Act, 2000 as amended. ABP has decided that the proposed development would be strategic infrastructure within the meaning of section 182A of the Planning and Development Act, 2000, as amended.

The application reflects and responds to the points of discussion during the course of the pre-application consultations with ABP, and with EirGrid and ESB Networks to ensure the proposed development design meets their requirements.

The scope of the EIAR has been defined at an early stage of the planning process in order to identify and ensure that the environmental studies address all the relevant issues. This included a review of the context of the development site, locality, and previously permitted development, and of the development proposed to identify the matters to be covered within this environmental impact assessment.

Additional Legislative Requirements

The proposed development is located directly adjoining to the combined cycle gas turbine power plant owned by Huntstown Power Company and operated by Gensys Power Ltd. The power station is a notified lower tier Seveso site, and the proposed development site is located within the consultation distance of this site. The proposed development will not be a Seveso/COMAH facility or an extension of the existing facility. Under the COMAH Regulations a Land Use Planning assessment been produced and is included with the planning documentation.

An Appropriate Assessment (Stage 1) Screening comprises an initial impact assessment of a project; examining the direct and indirect impacts that it might have on its own or in combination with other plans and projects, on one or more Natura 2000 sites in view of the sites' conservation objectives. An Appropriate Assessment

Screening has been undertaken for this the results of which are presented in the Appendix to Chapter 8 (Biodiversity).

Contributors to the EIA Report

The preparation and co-ordination of the EIA Report has been completed by AWN in conjunction with experienced specialists. The role and responsibility of each contributor, their qualifications and relevant experience are detailed in Chapter 1 (Introduction) , Section 1.3.1 of the EIA Report.

2.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

This chapter provides a description of the subject site, receiving environment and proposed development.

Site Characteristics

The subject site is located to the northwest of the M50 orbital ring, on lands adjacent to Huntstown Power Station, North Road, Finglas, Dublin 11. The site subject to this application extends to c.4.33ha.

The site is bounded by the Huntstown Power Station to the west and the Roadstone Huntstown Quarry and Huntstown Power Station private access road to the south. The site is presently bounded by greenfield agricultural lands to the north and east, which are subject to a concurrent Planning Application for the development of a data centre facility.

A 110kV overhead line traverse the site in a north – southeast direction towards to the Finglas 220kV/110kV substation complex to the southeast of the site. It is proposed under Planning Reg. Ref: FW21A/0144 that the overhead line circuit will be undergrounded to facilitate the development of the 220kV substation on the site.

Existing ESB underground 220kV cables to Corduff and to Finglas substations which are presently located along the Roadstone Huntstown Quarry Road will be diverted from the existing ESB substation in Huntstown Power Plant into the proposed 220kV Substation. This will have minimal impact and disturbance to existing proposed services and roads.

The greenfield site is free from development. The topography of the site falls slightly in an east west direction (78AOD - 82AOD).

The surrounding area is characterised by a variety of energy, industrial, commercial, quarrying, agricultural and residential uses. The overall site is generally bounded to the north by Huntstown Power Station and the wider Data Centre development site, the southern end of the site is traversed by a vehicular entrance leading to the Huntstown Quarry and bound to the south by an Anaerobic Digestion Plant. The lands to the east are existing greenfield lands and two residential properties fronting the R135 (demolition of both is included in the data centre application) that are intended to serve data hall buildings proposed under concurrent application Reg. Ref.: FW21A/0151.

A number of large logistics warehouse parks are located to the northeast of the site including Dublin Airport Logistics Park and Vantage Business Park, Coldwinters, granted under Ref. F17A/0769 and further amended under Refs. FW19A/0053 and FW20A/0044. Several small scale commercial and service uses are scattered along

the frontages of the R135 including: a garden centre; veterinary clinic and car repair facility.

The subject site is highly accessible to the national road network and is located less than 1km from the M50/N2 interchange and approximately 0.1km from the Coldwinters exit on the N2. The site is directly accessible from the R135 and via a service road to the south leading to Huntstown Quarry and Power Station.

Development Description

The proposed development will consist of the following:

(1) Construction of a 2 storey 220kV Gas Insulated Switchgear (GIS) substation known as 'Mooretown' comprising switchgear floor, cable pit/entry room, generator room, relay room, battery room, workshop, toilet, store room, mess room, hoist space, stair cores and circulation areas (c.2,068sqm total gross floor area) with an overall height of c.17m located within an overall EirGrid and Customer compound (c.11,231sqm in area). Lightning electrodes are attached to the roof of the substation building resulting in an overall height of c.20m. The compound includes 4 no. 220kV/20kV transformers, 4 no. 20kV switchgear buildings and 1 no. mv control room buildings (c.5m high and c. 35.5 sqm in area each), 220kV series coil (equipment), fire walls (ranging from c.10m-12.5m high), lightning finials and monopoles (c.20m high). The overall compound is surrounded by a c.2.6m high palisade fence. The proposed substation will serve the data centre proposed under concurrent application Reg. Ref. FW21A/0151;

(2) The underground cable (Cable No. 1) will follow a route originating at the proposed Mooretown Substation extending south and then west along the private road connecting the North Road with Huntstown Power Station and Huntstown Quarry. The route terminates at a proposed joint bay on the existing Corduff cable route. The underground cable (Cable No. 2) will follow a route originating at the proposed Mooretown Substation Compound / series coil extending south across the internal road connecting the North Road with Huntstown Power Station and Huntstown Quarry. The route terminates at a proposed joint bay on the existing Finglas cable route. Removal of the redundant sections of the 220kV Corduff cables and 220kV Finglas cables serving the existing AIS bay to Huntstown Power Station. The underground cable (Cable No. 3) will follow a route originating at the Mooretown GIS Substation extending south and then west to the adjacent existing ESB Huntstown A AIS station. The route terminates in the ESB Huntstown A AIS Station. The underground cable (Cable No. 4) will follow a route originating at the Mooretown GIS Substation extending south and then west to the adjacent existing Huntstown B AIS station. The route terminates in the ESB Huntstown B AIS Station;

(3) The development includes all associated and ancillary site development and construction works, services provision, drainage works, connections to the substations, all internal road/footpath access routes, landscaping and boundary treatment works, vehicular access onto the private road to the south of the site and provision of 9 no. car parking spaces in the overall compound.

3.0 PLANNING AND DEVELOPMENT CONTEXT

This chapter provides an overview of national, sub-regional and county/local planning policy that is relevant for the subject lands.

Government Statement on the Role of Data Centres in Irelands Enterprise Strategy (2018)

The Department of Business, Enterprise and Innovation released a statement on the Role of Data Centres in Ireland in 2018 in which it sets out the role and significance of data centres in Ireland's wider enterprise policy objectives. The subject proposal of a 220kV GIS substation will be facilitative infrastructure to power a future data centre development on the site.

Project Ireland – National Planning Framework (2040)

The National Planning Framework (NPF) is the Government's high-level strategic plan for shaping the future growth and development of our country out to the year 2040.

The NPF sets out that the Eastern and Midland part of Ireland will, by 2040, be a Region of around 2.85 million people, at least half a million more than today.

It is our considered view that the current proposal complies with and exceeds the vision of the National Planning Framework on the following basis:

- The proposal utilises the existing infrastructure and site services provided by Huntstown Power Station and associated AIS, making it the most efficient use for the site. The compact layout of the substation, transformers, switchgear and electrical equipment, optimises the site's location between the power station and proposed data centre.
- The overall development is appropriately located in West Dublin with excellent connectivity to the N2, N3 and M50.
- The proposal will contribute to the emerging digital infrastructure in Fingal County Council that helps to support a strong Irish economy through its enterprise, skills and innovation sectors.
- The proposal will continue to maintain high quality international connectivity, that Ireland is quickly becoming renowned for. The overall development will provide a mechanism which will aim to secure additional renewable energy generation.

The NPF is clear that it is favourably disposed to the location of ICT infrastructure in Ireland.

Having considered the above, it is submitted that the current proposal will deliver on key objectives contained within the NPF.

Regional Spatial and Economic Strategy (2019-2031)

Finglas/Fingal is identified as falling within the Dublin Region of the RSES.

The Growth Strategy for the Eastern and Midlands Region is to:

- Support the continued growth of Dublin as our national economic engine.
- Deliver sustainable growth to the Metropolitan area.
- Target growth to regional growth centres of Athlone, Drogheda and Dundalk
- Support vibrant rural areas with a network of towns and villages
- Facilitate the collaboration and growth of the Dublin – Belfast Economic Corridor

- Embed a network of Key Towns through the region to deliver sustainable regional development
- Support the transition to a low carbon, climate resilient and environmentally sustainable region.

The proposed development would contribute towards the achievement of Policy Objectives relating to the delivery of both electricity and ICT infrastructure.

It is submitted that the current proposal and wider development site is supportive of the growth strategy and enables growth of the metropolitan region of the RSES. Specifically, the development has the potential to strengthen the electricity transmission in the area.

4.0 ALTERNATIVES

This chapter provides a description of the reasonable alternatives studied by the persons who prepared the EIAR regarding the location, alternative designs and layouts and alternative processes considered relevant to the proposed development. A 'do nothing' alternative was also considered, where the lands would remain undeveloped.

Alternative Locations

Having regard to these various environmental and development considerations the Huntstown site was chosen as it was considered the most appropriate location for a future data centre development. The subject proposal of a 220kV GIS substation is facilitative infrastructure to allow for the development of the site as a future data centre facility. This location was chosen having regard to:

- The co-locational benefits beside the power station, in line with 'EirGrid's Data Centre Connection Offer Process and Policy, 2020' (which necessitates the provision of on-site dispatchable generation for firm capacity for data centres within the Greater Dublin Area).
- the short grid connection to the adjacent existing 220kV electricity network, thus decreasing energy losses associated with the transmission of energy and increasing the overall energy efficiency of the Proposed Development;
- excellent transport connections to the M50 and N2; and
- largescale data centre requirements relating to site scale and size.

As the substation is facilitative infrastructure for the overall data centre development, its location was informed by the design of the overall project.

Alternative Designs and Layouts

The proposed GIS substation is designed based on requirements stipulated by EirGrid. The design of the substation units is centred around the equipment requirements of EirGrid that are required to provide an efficient and safe service. From a "design and layout" point of view, therefore, the flexibility to select alternative designs and layouts was not available to the Applicant in this case.

Alternative Processes

The ESB underground 220kV cables which will be diverted from the existing substation at Huntstown Power Station into the proposed 220kV substation form an integral part of the national high voltage electricity grid which is currently operated by ESB networks.

The diversion of the cables to the new substation must meet ESB Networks strict specifications to ensure that it will be seamlessly absorbed into the national grid infrastructure and can provide a reliable power supply. From a process design point of view, therefore, the flexibility to select alternative processes for integration into the national grid is not available to the applicant.

Do- Nothing Alternative

The lands would remain greenfield and would not maximise upon the development potential of the site. This would be contrary to the policy objectives of the County Development Plan.

The 220kV substation development at this location provides strengthening and increased resilience of the EirGrid / ESB 220kV network in the North Dublin area as well as facilitative infrastructure to support the development of the wider site as a data centre facility and potential future 3rd party 220kV connections. Developing a data centre at this location would also derive the benefits and maximise upon existing infrastructure, which is supported by the county development plan.

5.0 POPULATION AND HUMAN HEALTH

This chapter evaluates the impacts, if any, of the proposed development on population and human health. The potential receptors within the environs of the site including residential properties, industrial, agricultural, and commercial businesses in the area. Impacts on humans from other issues such as natural hazards, soils, geology and hydrogeology, water, air quality, noise and vibration, traffic and landscape are discussed in detail their respective EIAR chapters: Where these topics are dealt with in further detail elsewhere in this EIA Report, the relevant chapters have been cross referenced in this chapter.

Receiving Environment

The sensitivity of the surrounding area has been considered based on the details of the published data. The local area has seen a population growth between the 2011 and 2016 census, there is a large proportion of the population within working age (24 – 44 years old) reflective of the national level. The area surrounding the site is divided between electoral divisions, such as The Ward with relatively low unemployment (11.57%), and a high proportion of residents with a university education (36.2%), and electoral divisions, such as Finglas North A with higher unemployment rate (28.71%) and a low percentage with university education (4.8%). The disposable income in the Dublin region is higher than average, relative to the national level. The Pobal HP Deprivation Index shows a disparity between adjacent electoral divisions with three ranking “marginally above average”, two ranking “marginally below average” and two ranking “disadvantaged”. The general health of the population is on trend with the state averages.

The initial analysis indicates the site has good access to social infrastructure and emergency services within 5 km of the site and in general a lack of vulnerable persons within the immediate vicinity (schools or public amenity). There are few residential receptors within close proximity to the site, as well as the Dogs Trust facility.

It is important to note that the analysis and data used to inform this study has not fully reflected the impacts of COVID-19 this is primarily due to the time in which this data was collected. It is difficult to determine the long-term impacts of the COVID-19

pandemic will have on population, socio-economics and health. This study has assumed that when the business closures and associated restrictions once ended will see a return to the pre-restriction state.

Potential Impacts

The proposed development has potential for a positive impact in regards to increased job opportunities and improved accessibility to jobs during construction and operation to the Fingal area. There will be a temporary, imperceptible, positive effect on local business with the limited presence of a small number of construction workers using local facilities during the construction phase. The main potential impacts on local businesses and residences associated with the proposed development will be in relation to air quality and noise, visual impact and traffic.

The location of the proposed development within lands zoned for heavy industry, in the vicinity of a national motorway the proposed development will have a minimal impact on the local landscape amenity. There will be no impact on the local parks.

The power supply for the proposed development will be drawn directly from the national grid and there is no anticipated impact to local residential or business users. A connection to mains water can be facilitated with Irish Water. There are no groundwater source protection zones in the immediate vicinity of the site, and the GSI Well Card Index does not show any wells drilled or springs at the site. No significant impact to Natural Resources or Material Assets is predicted, other than loss of a small portion of greenfield land.

During construction there are potential impacts in relation to noise, dust and traffic. Specifically in relation to air quality, the mitigation measures that will be put in place to manage dust during construction and the project design to manage emissions during operation will ensure that the impact of the development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Construction noise and vibration will be typically limited to daytime periods only. There are no health risks associated with operational noise resulting from the construction of the development subject to implementation of good site management practices and mitigation measures. During operation, the noise limits at the nearest noise sensitive locations are set in line with the EPA NG4 (2016) guidelines, and the below those set by the WHO *Guidelines for Community Noise (WHO 1999)* document. There are no health risks associated with operational noise resulting from the development. The predicted impact of the development on human beings and in particular road users will be short term, neutral and not significant for the construction phase.

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 Consulting and is included as Appendix 5.1. The LUP report examines hazards associated with Fuel Oil, LPG, and Natural gas installations on the proposed development site. The LUP report concluded that the proposed development is outside of the LUP Outer zone (1E-07) of Huntstown Power Station; therefore, the level of individual risk at the proposed development is acceptable. The proposed development is located sufficiently far away from the lower tier Seveso site to have no effects with regard to COMAH related effects.

Mitigations and Residual Impacts

Any perceived nuisance impacts on the immediate local population will be short-term and temporary in nature due to the length of the construction process for the proposed

development. No remedial or reductive measures are therefore required beyond normal landscaping, noise and construction mitigation that are outlined elsewhere within this EIA Report, and the Construction Environmental Management Plan (CEMP) included with the application documentation. The impact of construction of the proposed development is likely to be **negative, imperceptible** and **short-term** with respect to human health.

Operational phase impacts associated with the proposed development are predicted to be long-term and imperceptible as the cables will be buried underground once constructed. The substation is not a manned facility and there will be minimal emissions to air or noise associated with maintenance vehicles accessing the substation site.

Proprietary noise and vibration control measures will be employed in order to ensure that noise emissions from building services plant do not exceed the adopted criterion at the façade of any nearby noise sensitive locations. In addition, noise emissions should be broadband in nature and should not contain any tonal or impulsive elements. The resultant noise impact is **negative, imperceptible** and **long-term**.

6.0 LAND, SOILS, GEOLOGY AND HYDROGEOLOGY

This chapter of the EIA Report assesses and evaluates the potential impacts of the proposed development on the land, soils, geological and hydrogeological environment.

Inspection of the available GSI maps show that the bedrock geology underlying the site belongs to Tober Colleen formation consisting of rocks from the Late Chadian to Asbian age. The site is located over dark-grey, calcareous, commonly bioturbated mudstones and subordinate thin micritic limestones. Site investigations carried out in 2020 confirmed that overburden clays overlying the bedrock were at variable depths from 3 to 10.45 metres below ground level (mbgl). This GSI categorise the bedrock aquifer underlying the site as having an 'Extreme' vulnerability to the north and western boundary and 'High' vulnerability throughout the rest of the site. However, according to the site investigations, site-specific vulnerability can be more accurately described as 'High' (3-5 m of thickness) at the eastern section and 'Moderate' (5-10 m) at the eastern section of the subject site.

The GSI/Teagasc subsoil mapping database of the quaternary sediments in the area of the subject site indicates one principal soil types: Limestone Till Carboniferous (TLs). This till is made up of glacial Clays which are less permeable than alluvium subsoils.

The Groundwater Body (GWB) underlying the site is the Dublin GWB. Currently, the most recent WFD groundwater status for this water body (2013-2018) is 'Good' with a current WFD risk score 'Under Review'

Based on the TII criteria (refer to Appendix 6.1) for rating the importance of geological features, the importance of the bedrock and soil features at this site is rated as **High importance** with high significance or value on a local scale. This is due to the existence of an existing quarry in the vicinity of the subject site (Huntstown quarry) which is located c. 280 m to the west of the site.

The importance of the hydrogeological features at this site is rated as **Low Importance**. This is based on the assessment that the attribute has a medium quality significance or value on a local scale. The aquifer is not widely used for public water

supply or generally for potable use. In addition, there would not be direct or indirect hydrogeological connection between the site and any protected sites.

Topsoil, subsoils, and bedrock, will be excavated to facilitate construction of the development. Suitable soils and stones will be reused on-site as backfill in the grassed areas, where possible. It is currently envisaged that the majority of the excavated material will require removal offsite. Temporary storage of soil will be carefully managed in such a way as to prevent any potential negative impact on the receiving environment and the material will be stored away from any open surface water drains. Although there is no evidence of contamination of soil at the site, where any excavated material is found to be contaminated, an appropriate disposal method shall be selected depending on the type of contaminant found.

It is unlikely that contaminated material will be encountered during construction of the proposed development. Nonetheless, excavation works will be carefully monitored by a suitably qualified person to ensure that potentially contaminated soil is identified and segregated from clean/inert soil. In the unlikely event that potentially contaminated soils are encountered, they should be segregated, tested and classified as hazardous or non-hazardous in accordance with the EPA Guidance Document: *Waste Classification – List of Waste and Determining if Waste is Hazardous or Non-Hazardous* (2015) and *Council Decision 2003/33/EC*. It should then be removed from site by a suitably permitted waste contractor to an authorised waste facility.

The potential impacts of construction and operation and mitigation measures proposed have been identified and will be included in the Construction Environmental Management Plan (CEMP) for the proposed development.

All fill and aggregate for the proposed development will be sourced from reputable suppliers. All suppliers will be vetted for the appropriate certificates, management status and regulatory compliance standards.

Refuelling of construction vehicles and the addition of hydraulic oils or lubricants to vehicles, will take place in a designated area (or where possible off the site) which will be away from surface water gulley's or drains.

Following implementation of mitigation measures detailed in Chapter 6 of the EIA Report, the predicted impact during construction of the proposed development will be **short-term, imperceptible and neutral**.

During the Operational phase, there are limited activities that could potentially impact on the land soils, geological and hydrogeological environment. There is no requirement for bulk fuels or chemical storage, no requirement for discharge to ground and no requirement for abstraction of groundwater.

Any accidental discharge will more likely impact stormwater drainage due to the hardstand and drainage infrastructure proposed which include 2 no. petrol interceptors. This together with hardstand cover will minimise the potential for any impact to the underlying aquifer.

An environmental management plan will apply to the overall development during the operational phase incorporating mitigation measures and emergency response measures.

The predicted impact during operation of the proposed development, following implementation of mitigation measures detailed in Chapter 6 of the EIA Report will be **long-term, imperceptible** and **neutral**.

7.0 HYDROLOGY

This chapter of the EIA Report assesses and evaluates the potential impacts of the proposed development on the surrounding water and hydrological environment. There are a network of shallow ditches running along the field boundaries which consist of a series of local manmade drainage, with intermittent or ephemeral characteristics and likely fed from surface runoff and therefore are not considered to be a significant watercourse or stream

The local drainage ultimately flows in a northerly direction towards the Huntstown Stream (located c. 800 m to the north of the site). The Huntstown Stream leads to the Ward River c. 6.6km downstream and the Ward River discharges to the sea at Malahide Estuary over 15 river km downstream of the site.

The Huntstown Stream belongs to the Ward River WFD surface water body and is classified as having 'Moderate' status and has a rating of 'At risk of not achieving good status'. This moderate status is related to the nitrogen (nitrate, specifically) and orthophosphate conditions measured in the Ward River.

The potential risk of flooding on the site was also assessed. There is no risk of flooding affecting the site from fluvial or coastal sources, since the site lies within Flood Zone C (i.e., where the probability of flooding from rivers is less than 0.1% or 1 in 1000). However, an existing ditch that crosses the site will need to be diverted. The diversion has been designed in accordance with OPW Guidelines in order to ensure there will be not impact on the site in terms of flood risk.

Based on the TII methodology (refer to Appendix 7.1), for rating the importance of hydrological features, the importance of the hydrological features at this site is rated as **low importance**, based on the assessment that the attribute has a low quality significance or value on a local scale.

The potential impacts of construction and operation and mitigation measures proposed have been identified and will be included in the outline Construction Environmental Management Plan (CEMP) for the proposed development.

Temporary storage of soil will be carefully managed with excavations remaining open for as little time as possible and weather conditions will be considered when planning construction activities.

Any discharge of construction water during the construction phase will be discharged to foul sewer. Pre-treatment and silt reduction measures on site will include a combination of silt fencing, settlement measures and hydrocarbon interceptors. Any minor ingress of groundwater and collected rainfall in the excavation will be pumped out during construction. Extensive monitoring will be adopted to ensure that the water is of sufficient quality to discharge to the sewer.

To minimize any impact from material spillages, all oils, paints etc. used during construction will be stored within temporary bunded areas. Refuelling of construction vehicles and the use of any hydraulic oils or lubricants will take place in a

designated area (or where possible off site) which will be away from surface water gullies or drains. All contractors will be required to implement the CEMP.

The implementation of mitigation measures detailed in Chapter 7 of the EIA Report will ensure that the potential impacts on the surface water environment do not occur during the construction phase and that the residual impact will be ***short-term-imperceptible- neutral***.

During operation there are limited risks to surface water receptors. The proposed development will provide full attenuation for increase in hardstand area in compliance with the requirements of the Greater Dublin Strategic Drainage Study. A number of measures will be put in place to minimise the likelihood of any spills entering the water environment to include the design of the car park, fitting of refuelling areas with hydrocarbon interceptors and on-site speed restrictions. Refer to the Civil Engineering Planning Report for further details (AECOM, 2021).

An environmental management plan will apply to the overall development during the operational phase incorporating mitigation measures and emergency response measures. During operation the site will operate in compliance with the requirements of an Irish Water (IW) connection agreement licence for discharge to sewer.

The implementation of mitigation measures highlighted in Chapter 7 will ensure that the potential impacts on the surface water environment do not occur during the operational phase and that the predicted impact will be ***long-term-imperceptible-neutral***.

8.0 BIODIVERSITY

This chapter provides an assessment of the impacts of the proposed development in question on the ecological environment, i.e. flora and fauna. The development site is predominately comprised of fallow farmland of relatively low local ecological value. Hedgerows and mature trees present opportunities for roosting and commuting bats.

The subject site is drained by internal ditches which primarily drain to ground and during extended periods of rain into a large deep drainage ditch adjacent to the Huntstown Power Facility at the western perimeter. This larger ditch is intermittently hydraulically linked to the Huntstown Stream depending on flow rates, which is a tributary of the Ward River, which flows northeast to Malahide Estuary over 15 river km downstream. Malahide Estuary is designated as both an SAC and SPA.

There are no rare or protected habitats recorded in the study area. The site may be considered of Low Local Ecological Value. There are no predicted significant impacts on local ecology.

None of the qualifying habitats or species of the European sites considered in the potential zone of impact occur under the footprint of the proposed works areas.

The proposed development will have no predicted impacts on European sites or on local ecology, therefore cumulative impacts can be ruled out.

Standard mitigation measures for the avoidance of impacts on breeding birds is included along with avoidance measures with regard to potential impacts on bats from lighting on the site.

The development is located in an area of low local ecological value and, as such, is predicted to have a **neutral** and **imperceptible** effect on biodiversity.

9.0 AIR QUALITY AND CLIMATE

In terms of the existing air quality environment, data available from similar environments indicates that levels of particulate matter less than 10 microns and particulate matter less than 2.5 microns (PM₁₀/PM_{2.5}) are, generally, well within the National and European Union (EU) ambient air quality standards.

An assessment of the potential dust impacts as a result of the construction phase of the proposed development was carried out based on the UK Institute of Air Quality Management (IAQM) guidance. This established the sensitivity of the area to impacts from construction dust in terms of dust soiling of property and human health effects. The sensitivity of the area was combined with the dust emission magnitude for the site under three distinct categories: earthworks, construction and trackout (movement of vehicles) in order to determine the mitigation measures necessary to avoid significant dust impacts.

Once mitigation measures, such as dust and traffic management, are implemented the impacts to air quality during the construction of the proposed development are considered, short-term and imperceptible, posing no nuisance at nearby sensitive receptors (such as local residences).

As the proposed cables will be underground once completed, there are no potential impacts to air quality during the operational phase.

Climate

The existing climate baseline can be determined by reference to data from the EPA on Ireland's total greenhouse gas (GHG) emissions and compliance with European Union's Effort Sharing Decision "EU 2020 Strategy" (Decision 406/2009/EC). The EPA provisionally estimate that Ireland had total GHG emissions of 59.9 Mt CO₂eq in 2019. This is 6.98 Mt CO₂eq higher than Ireland's annual target for emissions in 2019. Emissions are predicted to continue to exceed the targets in future years.

Based on the scale and temporary nature of the construction works, the potential impact on climate change and CO₂ emissions from the construction of the proposed development is deemed to be short-term, neutral and imperceptible in relation to Ireland's obligations under the EU 2030 target set out under Regulation (EU) No. 525/2013. There is no impact during operation as there are no emissions from the proposed development.

Human Health

The best practice dust mitigation measures that will be put in place during construction of the proposed development will ensure that the impact of the proposed development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Therefore, the impact of construction of the proposed development is likely to be short-term and imperceptible with respect to human health. The proposed cables will be underground and will have no impact air quality in relation to human health once operational. In addition, the proposed substation does not have the potential for any emissions which could impact air quality in terms of human health during operation.

Mitigation Measures

A dust minimisation plan will be implemented during the construction phase of the proposed development to ensure that no significant dust nuisance occurs outside the site boundary, measures include the development of a documented system for managing site practices with regard to dust control, monitoring and assessment of dust. No mitigation is required during operation.

Residual Impacts

After the mitigation measures outlined in this assessment are implemented, there will be no residual impacts of significance on air quality or climate from the construction or operational phases of the proposed development.

10.0 NOISE AND VIBRATION

This chapter assesses the anticipated noise and vibration impact associated with the proposed development at nearby noise sensitive locations.

The existing noise climate has been surveyed at nearby noise sensitive receptors over the course of typical day and night-time periods. Road traffic movements, both distant and local, were noted as the most significant source of noise during both daytime and night-time periods. Other noise sources included aircraft activities and other typical noise sources expected in a suburban environment (e.g. pedestrian activity, dogs barking, distant plant noise etc.).

When considering a development of this nature, the potential noise and vibration impact on the surroundings must be considered for each of two distinct stages: the short-term impact of the construction phase and the longer-term impact of the operational phase.

During the construction phase of the proposed development there will be some impact on nearby noise sensitive properties due to noise emissions from site activity and traffic. The application of noise limits and limits on the hours of operation, along with implementation of appropriate noise and vibration control measures, will ensure that noise and vibration impact is kept to a minimum. The resultant impact is **moderate, negative and short-term**.

The primary sources of noise during the operational phase of the proposed development will be long-term and include the introduction of additional building services plant for general site operation, additional building services plant (i.e. generators) for emergency site operation and the introduction of additional vehicular traffic on existing public roads. Proprietary noise and vibration control measures will be employed in order to ensure that emissions from building services plant do not exceed the relevant criteria at nearby noise sensitive locations. Any change in noise levels associated with additional vehicles at road junctions in the vicinity of the proposed development is expected to be imperceptible. The resultant noise impact is **imperceptible, negative and long-term** while being within all adopted noise criteria.

No significant sources of vibration will be present during the operational phase. There are therefore no predicted vibration impacts at neighbouring dwellings during the operational phase. The resultant vibration impact is **imperceptible, neutral and long-term**.

11.0 LANDSCAPE AND VISUAL

Characteristics of the Site and Environs.

The proposed development site has the character of an agricultural field with traditional hedgerow field boundaries both around and within the site. Due to the nature of the development, for the most part the site boundary is not defined by physical features. The site boundary is defined to the North by an existing field hedgerow; however, the southern eastern and western boundaries have no physical elements associated. The subject lands extend across the access road to the South, while to the East, they overlap with the lands associated with the concurrent data centre development.

The flat topography of the wider area reduces the opportunity for expansive views over the landscape. The visual sensitivity is reduced further by the large industrial facilities close to the site, most notably the power station abutting the site to the west. The area is zoned in the development plan for Industrial uses as it considered in planning terms to be an extension of the surrounding industrial landscape. The industrial development general infrastructure in the area have created a landscape where there are no views of any notable landscape value in local and wider area. There are also no landscape planning objectives that relate specifically to the site

Impact on Landscape Character

The operational phase will give rise to a noticeable change in the landscape character. The initial impact of the built development on the landscape character would be perceived as negative in the short-term due to the change in type from a field to a built development.

The overall impact on the landscape character would therefore be considered negative, long-term and moderate in magnitude.

Landscape and visual impacts due to the introduction of a new landscape.

The proposed landscape as part of the concurrent data centre development will create significant belts of native woodland linking the existing hedgerows and trees into a much larger ecological habitat.

The native woodland to be created will be visible from the surrounding landscape and will result in a positive impact on local views. The impact of the proposed landscape scheme would be considered positive, long-term, and significant in magnitude

Landscape and Visual impacts due to the introduction of new buildings and built structures:

The buildings and built structures under the proposed development will not be visible in the wider landscape. The overall visual impact of the Proposed Development would be considered neutral and long-term due to the extent of screening and scale of the proposed buildings associated with the concurrent data centre development paired with the level of similar scale development in the surrounding area.

12.0 ARCHAEOLOGICAL, ARCHITECTURAL AND CULTURAL HERITAGE

This chapter assesses the predicted impacts of the proposed development on archaeological, architectural and cultural heritage using a number of sources including

the Record of Monuments and Places, the National Inventory of Architectural Heritage, the Excavations Database, cartographic, aerial photography and documentary sources.

The construction of the proposed development will not impact directly on any sites included in the RMP. However, the baseline survey, geophysical survey and archaeological testing has identified archaeological sites located within the boundary of the proposed development, most notably in (but not limited to) Field 2 adjacent to the site.

The proposed development works will have direct, negative and profound impacts on these sub-surface features. However, these sub-surface features would not have been known had archaeological testing not been undertaken.

The implementation of mitigation measures, detailed in Section 12.6.1, will facilitate the excavation of these features in advance of the proposed development. Although the excavations will result in the removal of these archaeological features, the excavation will add to the academic understanding of the history of the area through archaeological research and reporting.

Therefore, the overall impact of the proposed development on the archaeological heritage is deemed to be neutral and not significant, and long term.

Please note that the recommendations given in Chapter 12 are subject to the ongoing approval of the National Monuments Service, Department of the Culture, Heritage and the Gaeltacht.

13.0 TRAFFIC AND TRANSPORTATION

This chapter assesses the traffic impact that the proposed development will have on the surrounding road network during construction and operation. The proposed site is located on lands west of the R135 regional road. The site is accessed via an agricultural access off the Huntstown Quarry and Power Station access road (private) to the south. The Huntstown Quarry and Power Station access road is accessed via the R135 known locally as the North Road. The North Road is approximately 7.5 metres wide with a footpath on the eastern side of road to the site frontage. The North Road intersects with the N2 Dual carriageway at the Cherryhound Interchange to the north and forms a cul-de-sac to the south.

Traffic Generation and Distribution

At the construction stage the site will generate a maximum of 33 operatives' vehicles per day accessing the site together with up to 20 HGV and LGV movements. Excess operative's vehicles will be parked at an existing surface car park (DAA surface car park or similar such established facility) and workers bused to and from the site. Site staff will arrive prior to at 07.00 hours daily to ensure staggered start times with those of the surrounding road network; site construction works are anticipated to commence at 08.00 hrs (Monday to Friday). These measures will be implemented to reduce the impact on the local road network during peak times which are 08.00-09.00 hours and 16.30-17.30 hours for the respective AM and PM peaks.

During the operational phase the proposed development does not require any full time staff to operate it on a daily basis. For the purposes of this assessment it is forecast that there will be 10 van movements per week to the site for site maintenance

purposes, together with some additional infrequent site visits for infrastructure maintenance. The number of visits equates to 2 vans per day – or 4 trips.

Vehicular and pedestrian access to the development will be from the Huntstown Quarry and Huntstown Power Station access road.

Construction Phase Impacts

Construction activities will be largely contained within the boundary of the site. There will be a requirement for construction materials to be brought to the site as well as specialist plant. It is anticipated that these deliveries will occur throughout the day and will be infrequent.

The traffic flows from the 2019 survey on the surrounding road network have been grown to 2022 rates in order to set the baseline traffic for each of the junctions that were surveyed for the peak hours. These figures were then compared to the assigned additional flows arising from the construction traffic.

Construction operatives will travel to and from the site, but the timing of trips will be offset from the peak times on the local road network. Additionally, remote off site overflow parking will be provided and will operated as a park and ride system.

On the basis of the TII Traffic and Transport Guidelines (May 2014), if the impact on a junction does not exceed 10% of the existing two-way traffic flow (or 5% at sensitive locations), then modelling is not required for the junction. As all of the flows are considerably below threshold no further analysis is warranted.

The estimated increase in traffic associated with the construction phases of the proposed development will be **short term, not significant and neutral**.

Operational Phase Impacts

It is expected that the overall development will be operational by 2023. During the operational phase the proposed development does not require any full time staff to operate it on a daily basis.

The proposed development will have an imperceptible impact on the road network, in particular the junctions in the proximity of the development. The proportional traffic increase through the relevant junctions with the Proposed Development are significantly below the thresholds stated in the *TII Guidelines for Traffic and Transport Assessments, 2014* for junction analysis. Overall the impact of the development will be **long term** in duration of **imperceptible neutral** effect.

14.0 MATERIAL ASSETS

This chapter prepared evaluates the potential impacts, from the proposed development on Material Assets as defined in the EPA Guidelines. The impacts on some of the material assets described in the above guidance have already been considered in the following chapters and therefore these aspects have not been addressed in specific detail within this chapter.

- Chapter 5, Population and Human Health;
- Chapter 6, Land, Soils, Geology & Hydrogeology;
- Chapter 7, Hydrology;

- Chapter 9, Air Quality & Climate;
- Chapter 12, Cultural Heritage
- Chapter 13, Traffic & Transportation; and
- Chapter 15, Waste Management.

This chapter assesses ownership and access, built services and infrastructure, which have not already been addressed elsewhere in this EIA Report.

Land Use and Property, and Access

The majority of the proposed development site is under third party ownership, the applicant has an options agreement between the existing landowners for future purchase of the site. A right of way exists at the entrance that is to be established from the Huntstown Quarry entrance road. Letters of consent, to apply for development on the lands from the site owners are included with the planning documentation.

In advance of work starting on site, the works contractor will prepare a detailed Construction Environmental Management Plan (CEMP) to manage potential nuisance impacts on nearby residential receptors. The potential impact associated with land use and property for the construction phase will be **localised, negative, not significant** and **short term**.

The main access to the proposed GIS substation compound will be via the adjacent Huntstown Power Station internal road to the west of the site. A secondary access for emergency access will be from the existing Huntstown quarry exit road.

The site is zoned 'HI – Heavy Industry', the presence of a generally low impact activity would remove uncertainty in the minds of landowners with regard to the potential of a more onerous developments on the site in the future.

Power and Electrical Supply

The site and wider lands are also traversed by an 110kV and 38kV overhead line. An application to divert these lines underground has been made by TLI Group under Planning Reg. Ref.: FW21A/0144. as discussed in Chapter 2 (Description of Development). The site is strategically located directly to the east of the existing Huntstown Power Station, and the existing Finglas 220 / 110 kV substation is located to the south.

During construction, contractors will require power for onsite accommodation, and construction equipment / plant. The potential impact associated with power and electrical supply for the construction phase will be a **neutral, imperceptible** and **short term**.

In this instance the nature of the proposed development ensures that rather than utilising electricity, the proposed development will connect existing infrastructure to the concurrent Data Centre development. It has been confirmed by EirGrid through the Transmission Connection Agreement that there is sufficient power available from the existing area network to facilitate the concurrent Data Centre development. EirGrid as the national authority for the grid has the requirement to ensure that the connection will not impact or reduce the capacity available within the local network to support the neighbouring area. If there was a potential impact or inadequate capacity this would have been confirmed to the developer during consultation.

There is a potential impact on material assets during the operational phase of the proposed development is **neutral, slight and long term**.

Surface Water Infrastructure

The site is currently agricultural land, and stormwater currently discharges through a series of land drains into the onsite ditches and flows northwards towards the Huntstown Stream, and the Ward River. There is no existing public surface water infrastructure available on the site.

During construction run-off into excavations/earthworks cannot be prevented entirely and is largely a function of prevailing weather conditions. Any discharge water will be treated using a silt-buster or similar to removed suspended solids prior to discharge. With appropriate and standard mitigation in place, as outlined in the CEMP, the potential impact on surface water for the construction phase is **neutral imperceptible, and short term**.

The proposed development will capture rainwater runoff from building roofs, yards and the internal road network and divert into the newly constructed gravity stormwater drainage network. The design of the site as included measures to attenuate surface water to acceptable flows and treat stormwater prior to discharge following GDSDS guideline; thus the design has appropriately mitigated potential risks associated with flooding taking into account climate change risk. In addition, the design of the culvert for the centre of the site meets OPW guidance and is not anticipated to significantly change the hydraulic characteristics of the watercourse.

Further information in relation to surface water infrastructure is detailed in the AECOM Drainage and Water Services (Appendix 14.2) and CSEA Engineering Planning - Drainage and Water Services (Appendix 14.3) and the included drainage drawings 60641561-DWG-713 which accompanies the planning application. Further reference is made to surface water drainage and flood risk in Chapter 7 (Hydrology).

Foul Drainage

There is an existing 225mm \varnothing foul sewer located in the R135 Regional Road to the north-east of the site. Welfare facilities will be provided for the contractors via portable sanitary facilities within the construction compound site during the construction works.

Foul drainage from the GIS building will be gathered to a centrally located manhole where it will then be pumped offsite to the adjacent Data Centre's private sewer. The route, flows and general levels of the rising main has been agreed with the Data Centre designers and allows for local flow buffering at the pump station before discharge. The foul water drainage infrastructure for the concurrent data centre development as described in Section 2.4.2 of Chapter 2 has been designed to accommodate foul water drainage from the Proposed Development.

During the operational phase the wastewater discharged from the site will ultimately discharge to the Ringsend WWTP. Irish water have confirmed through the PCE that there is available capacity in the network.

As part of the application for the concurrent data centre development a pre-connection enquiry (PCE) form was submitted to Irish Water which addressed wastewater demand for the development. The reference number for the Pre-Connection Enquiry is CDS20004468. Irish water responded to this request on 31 March 2021 (Appendix

14.1). The PCE confirmed that the connection to the mains is feasible without infrastructure upgrade works.

Potable Water Supply

There is an existing 150mm ϕ water main located in the R135 Regional Road to the east of the site. During construction, a temporary connection will be required for welfare facilities, dust suppression and general construction activities. It is anticipated that a combination of tankered water and bottled water will be used.

The proposed development shall have a requirement for water to cater for the sanitary facilities this will be provided from the concurrent Data Centre's private water supply. A peak water demand of 400 litres/day during an 8-hour occupied shift has been allowed. Due to the gaps in use from the supply, potable water will be imported bottled water.

As part of the application for the concurrent Data Centre development a pre-connection enquiry (PCE) form was submitted to Irish Water which addressed water and wastewater demand for the development. The reference number for the Pre-Connection Enquiry is CDS 200004468. Irish water responded to this request on 16 March 2021 (Appendix 14.1) and have confirmed that the connection is feasible subject to additional off-site upgrade works. This is detailed further in the CSEA Engineering Planning -Drainage and Water Services (Appendix 14.3).

The extent of the required off site upgrade works include the upgrade of approx 1500m of new 450mm diameter main, and the upgrade of pumps at Ballycoolen Highlands Tower. These works located in public domain and will be undertaken by Irish Water, thus there is no requirement for third-party consent to undertake such works. The applicant intends to engage with Irish Water regarding funding a portion of these upgrading works at connection application stage. It is proposed to connect a new 250mm ϕ watermain to the proposed 450mm ϕ water main in the R135.

Telecommunications

Telecommunications including fibre required during the construction phase will be provided via a mobile connection or temporary connection to the nearby telephone network.

There are telecommunication lines in existence for telephone and broadband services in the area. A fibre optic cable distribution network will be installed with a separate incoming fibre infrastructure and provided to the substation building via underground fibre ducts.

Residual Impacts

The works contractor will be obliged to put best practice measures to ensure that there are no interruptions to service from the existing telecommunications network, watermain, sewer and electrical grid. The predicted impact will be **neutral**, **imperceptible**, and **short term** for the construction phase.

The operator has engaged with Irish Water and EirGrid to ensure that there is sufficient capacity in the water supply network, public sewer, and electrical grid. Irish water and EirGrid have confirmed that there is adequate capacity. It is not anticipated that connections to these would have any significant offsite impact. The predicted impact will be **neutral**, **imperceptible**, and **long-term** for the operational phase.

15.0 WASTE MANAGEMENT

This chapter has been prepared to address issues associated with waste management during the construction and operational phases of the proposed development.

An assessment was carried out of the potential impacts associated with waste management during the construction and operational phases of the proposed development. The receiving environment is largely defined by FCC as the local authority responsible for setting and administering waste management activities in the area through regional and development zone-specific policies and regulations.

During the construction phase, typical construction waste materials will be generated which will be source segregated on-site into appropriate skips/containers and removed from site by suitably permitted waste contractors to authorized waste facilities. Where possible, materials should be reused on-site to minimize raw material consumption. Source segregation of waste materials will improve the re-use opportunities of recyclable materials off-site.

The optimum depth of excavation required to facilitate installation of the 110kV ducting for the transmission line is 1.2m below ground level (bgl) but may increase up to 4 m bgl at road crossings and depending on existing constraints, utilities, etc. The typical width of each trench is up to 2.5 m, however this may vary depending on ground conditions and existing services. These are indicative dimensions and can vary greatly per installation.

It is estimated that approximately 12,045 m³ of topsoil, subsoils, tarmacadam / hardcore fill will be excavated to facilitate construction of the proposed development. Suitable soils and stones will be reused on-site as backfill in the grassed areas, where possible. However, it is currently envisaged that the majority of the excavated material will be removed from site. The estimates will be refined prior to commencement of construction.

A carefully planned approach to waste management and adherence to the site-specific Construction and Demolition Waste Management Plan during the construction phase will ensure that the effect on the environment will be **short-term, neutral and imperceptible**.

Once operational, it is anticipated that very small amount of waste will be generated at the proposed GIS substation from ESB networks staff during their inspections and maintenance works.

These wastes may include organic/food waste, dry mixed recyclables (waste paper, newspaper, plastic bottles, packaging, aluminium cans, tins and Tetra Pak cartons) and non-recyclable waste. Waste fuels/oils, waste printer/toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently.

Dedicated areas have been allocated for storage of waste materials generated during the operational phase of the development. This waste will be generated from the building staff and will comprise of typical commercial waste types. Waste storage areas have been allocated to ensure a convenient and efficient management strategy with source segregation a priority. Waste will be collected from the waste storage areas by permitted waste contractors and removed off-site for re-use, recycling, recovery or disposal.

With mitigation in place and a high rate of reuse, recycling and recovery achieved, the predicted impact of the operational phase on the environment will be **long-term, neutral** and **imperceptible**.

16.0 CUMULATIVE IMPACTS

This chapter of the EIA Report considers the potential cumulative impacts on the environment of the proposed development with other proposed, permitted and existing developments in the locality.

The potential cumulative impacts are assessed for each environmental aspect and the predicted impact for each aspect for each scenario is described in Chapter 16 of the EIA Report. With mitigation for each environmental aspect, it is predicted that there will be no significant, long-term cumulative effects.

17.0 INTERACTIONS – INTERRELATIONSHIPS BETWEEN THE ASPECTS

This chapter of the EIA Report addresses potential interactions and inter-relationships between the environmental factors discussed in the preceding chapters. This covers both the construction and operational phase of the proposed development.

The interactions between the environmental factors and impacts discussed in this EIA Report have been assessed and the majority of interactions are neutral.

During operation the noise impact will be greater than in the current agricultural environment although it will not be a risk of impact on human health. The proposed development will create significant temporary direct and indirect employment. This will have a positive benefit on the economic development for the area in which the development is located.

There are no significant negative impacts predicted from the interactions of the constituent elements of the proposed development when viewed in the light of their associated mitigation measures.