Appendix 1A

Scoping Review

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CONTENTS

TABLES

1.0 INTRODUCTION

1.1 Background

1.1.1 AECOM has been appointed by Bord na Móna Powergen Limited ('the Applicant') to undertake an assessment of the environmental impact in relation to a planning application ('the Application') for a Combined Cycle Gas Turbine (CCGT) unit and an Open Cycle Gas Turbine (OCGT) unit, Electricity Grid Connection including substations and associated buildings and infrastructure ('the Proposed Development') on land within a subset of the Derrygreenagh bog group in Counties Offaly, Westmeath and Meath. Derrygreenagh bog group consists of the lands of Derryhinch bog, Drumman bog, Derryarkin bog and Ballybeg bog which have been designated for development of energy generation projects. These lands are termed as Bord na Móna Energy Park (c. 3,000 hectares) for communication purposes.

1.1.2 The Proposed Development will comprise of the following main components (for construction, operation and decommissioning phases):

- CCGT Unit, including CCGT Turbine Hall and buildings, Heat Recovery Steam Generator (HRSG);
- OCGT Unit and emissions stack;
- Secondary Fuel Storage and Unloading Facility;
- Gas Connection Above Ground Installation (AGI) Compound;
- Associated buildings and infrastructure and subsidiary items of plant/equipment; and
- Electricity Grid Connection, including 220kV Substation, 220kV Overhead Line, 220kV Interface Compound, 220kV Underground Connection and 220/400kV 'Loop-in' Substation at entry point to the 400kV transmission network.

1.1.3 The 'Overall Project' includes the construction, operation, and decommissioning of the underground connection to the existing high pressure gas pipeline to the north for which consent will be applied for by the gas networks operator, Gas Networks Ireland (GNI), at a point in the future. Whilst the connection to the existing high pressure gas pipeline is therefore not part of the Planning Application (and the Proposed Development), it forms an integral part of the 'Overall Project' and has been identified for environmental assessment within the accompanying EIAR as part of the Overall Project.

1.1.4 A detailed description of the Proposed Development and its components is available in Vol I, Chapter 5: Proposed Development, of this EIAR.

2.0 THE EXISTING SITE AND SURROUNDINGS

2.1.1 The Proposed Development and Overall Project site comprises three main elements (refer to Figure 1.1), those being:

- The Main Development Area;
- The Electricity Grid Connection; and
- The Gas Connection Corridor.

2.1.2 The Proposed Development Site (comprising the Main Development Area and the Electricity Grid Connection) is located in Derrygreenagh, within the administrative area of Offaly County Council (Irish Grid Reference N 49525 38259). The Gas Connection Corridor is located within the administrative area of Offaly County Council and Westmeath County Council.

2.2 Main Development Area

2.2.1 The Main Development Area relates to the main thermal power plant area located within Drumman bog on the existing Derrygreenagh Works site east of the R400 road, the main access point. The area is used for servicing and repairing peat harvesting and transport equipment, and contains several buildings, paved and concreted areas, railways, sheds and outhouses, car-parking facilities, and machinery yards.

2.2.2 The landcover within the Site boundary more generally is mainly flat cutaway peatland with a mixture of bare cutaway peat, re-vegetated bare peat, degraded blanket bog, scrub, low woodland, and agricultural land. Several large drains are present in the area as a result of previous works. The land is generally quite flat, and some pools of standing water occur in low-lying areas. Bord na Móna lands have a network of railways and machine passes running through the bogs.

2.3 Electricity Grid Connection

2.3.1 The 200kV substation, pylon towers, overhead lines, undergrounding compound, underground cabling, associated cabling and connections, and 220/400kV loop in substation will be located within Derryarkin and Ballybeg bogs, west of the R400 road, and on agricultural land adjacent to Ballybeg bog, south of the L1010 road. The Yellow River runs west to east and dissects Derryarkin and Ballybeg Bog before crossing the R400 road. Ballybeg bog is bisected by the Coolcor Stream which is a tributary of the Yellow River. The Coolcor stream has been canalised and flows west to east through Ballybeg bog.

2.3.2 The electricity grid route starts to the west of the Main Development Site, on the western side of the R400 where the 200kV substation will be located within a brownfield site with limited mature trees and grassland, and disturbed bogs with varying degrees of vegetation. There is also a narrow railway crossing from west to east into the Main Development Area.

2.3.3 The proposed overhead line and towers will traverse south for c. 5km over peat bogs within lands owned by the Applicant, crossing the Yellow River and a private road associated with Kilmurray S&G, before being undergrounded at a compound north of the L1010 Togher. An underground cable route will then continue south, following the route of the existing narrow railway before connecting to the 400kV substation located on agricultural land adjacent to Ballybeg bog, south of the L1010 road, in proximity to the existing electricity overhead route transmission network. The underground connection will cross another segment of the Yellow River as well as L1010 Togher.

2.4 The Gas Connection Corridor

2.4.1 The Gas Connection Corridor begins where it links into the north-east corner of the Main Development Site, within Drumman bog, and continues in that direction until reaches the national natural gas distribution system at the Gas Networks Ireland. A significant length of the corridor traverses land belonging to the Applicant with mix uses, including quarrying, forestry, bogs in varying degrees of disturbance, and the storage, seasoning, and chipping of biomass logs.

2.4.2 In addition to the lands belonging to the Applicant, the corridor also crosses forestry areas under different ownership, a segment of the Mongagh and Milltown River, and two segments of the Kinnegad River, agricultural lands, M6 motorway, R446, and other minor roads.

2.4.3 There are ongoing quarrying activities, including a number of ponds, in sections to the west and north of the Drumman bog, east of the R400 road.

2.5 Project Site History

2.5.1 Turf Development Board was originally created in 1933 but later changed name to Bord na Móna in 1946 under the Turf Development Act. At the time of its creation, their primary goal was the economic developing of peat resources, which commenced in 1952. For the development of activities, it was necessary at the time to build railways to transport harvested peat. Since then, the company has expanded into other areas of businesses such as power generation, waste collection, forestry, and quarrying of sand and gravel. The majority of the Proposed Development Site and the surrounding area have historically been used in peat extraction and for ancillary services and infrastructure to facilitate this activity.

2.5.2 Part of the Site for the new loop in substation to the 400kV line have historically been used for agricultural purposes.

2.5.3 The Applicant announced in 2015 their plan to cease harvesting energy peat by 2030. Additionally, the Applicant continues investing in works dedicated to bog rehabilitation.

2.5.4 The lands where the Main Development Area is located have been primarily used for works relating to the repair and modification of machinery used for the harvesting and transport of peat from the nearby bogs. Over the years, in line with Applicant's goal to cease harvesting peat by 2030, works at this site have been scaled back owing to reduced peat production.

2.5.5 In 2010, planning consent was granted (following submission of an Environmental Impact Statement) for a 430 MW CCGT unit and a 170 MW OCGT unit, in addition to ancillary works, to be located in the Main Development Area. Consent was valid until 2015 but has since then been extended.

2.5.6 In January 2021, Bord na Móna formally announced that all industrial scale peat extraction on lands within its management would permanently cease. Current activities on-site post peat extraction include site management and environmental monitoring and are regulated under the Integrated Pollution Control (IPC) Licence Reg No. P0501-01, per activity class 1.4 of First Schedule of the Environmental Protection Agency (EPA) Act, as amended.

2.5.7 Bord na Móna have made an application for leave to apply for substitute consent (LS19.315436) without prejudice, for the lands upon which and surrounding the proposed Derrygreenagh Power development, to regularise the planning status of the historic peat extraction activity on those lands.

2.5.8 Currently, within the Main Development Area, there are offices and workshop and storage areas that facilitate activities related to peat extraction and rehabilitation of bogs regulated under IPC Licence P0501-01, while the proposed 220kV site is located south-east of a refuelling area serving the activities associated with P0501-01. Additionally, there is an activity south of the Mongagh River for storage, seasoning, and chipping of seasoned of biomass logs on a site area of 29.17 ha, over which the proposed surface water line discharge pipeline will cross through.

2.6 The Surrounding Area

2.6.1 Within the wider area the Proposed Development surroundings include the following features with approximate distances indicated from the Site:

- North – Mongagh River (c. 500 north), Rochfortbridge Co. Westmeath (c. 4km), M6 Motorway (c. 2km);
- East – Kilmurray S&G (c. 300 m), Rhode Co. Offaly (c. 1km), Black Castle Bog NHA (c. 5.5km);
- South – Grand Canal pNHA (002104) (less than 0.5km), residential properties (c. 1km). Raheenmore Bog Special Conservation Area (SAC) SAC (also designated as a nature reserve) (c. 5km), Daingean Bog Natural Heritage Area (NHA) (c. 5km); and
- West – R400 regional road (directly adjacent).

2.6.2 The characteristics of the surroundings of the Overall Project vary but comprise mostly low density agricultural and residential development with either scattered houses and farming buildings, or dwellings clustered along busier roads. The closest town is Rochfortbridge, Co. Westmeath, c. 4km north-west of the Site. There are three active quarries in the area; two of them are operated in a joint venture by the Applicant while the third, towards the south-west of the Main Development Area, is privately owned.

2.6.3 Lands surrounding the Site are typically rural in nature, principally historic peat harvesting and agriculture. A significant extent of lands in close proximity to the Proposed Development boundary are peat bogs owned by the Applicant which have been historically harvested, though activities scaled back over the last number of years.

2.6.4 The Grand Canal pNHA is in proximity to 400kV substation. In addition, the electricity connection route will cross segments of the Yellow River in two instances (the southernmost segment being the Coolcor stream, IE_EA_07C080190).

3.0 ENVIRONMENTAL AND PLANNING REVIEW

3.1.1 The Applicant will be submitting an Environmental Impact Assessment Report (EIAR) with this planning application and as such the development will be considered Environmental Impact Assessment (EIA) development. The aim of EIA is to protect the environment by ensuring that the planning authority, when deciding whether to grant planning permission for a project which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision-making process.

3.1.2 AECOM has undertaken a high level environmental and planning review of the existing site and surrounds, historic planning consents and Environmental Impact Assessment, and available data in relation to the potential site and technical options being proposed by the Applicant. The focus of the approach is to identify environmental and planning 'Red Flags'.

3.1.3 The key focus of the approach is to be an appraisal of the likelihood to Scope out EIA/ Appropriate Assessment (AA) (e.g., likely significant impacts). A high-level Screening Appraisal (tabular format) will be undertaken. A summary of the size and scale of the proposed project, sensitive receptors and the initial conclusions reached in relation to whether the Proposed Development will have any likely significant environmental effects will be provided. The opinions will be drawn from a systematic review of the proposals and site against the requirements of the EIA Regulations.

4.0 THE APPLICANT

4.1.1 The Applicant for the Proposed Development is Bord na Móna Powergen Ltd, a subsidiary of Bord na Móna PLC. Bord na Móna PLC is a publicly owned company, originally established in 1946 to develop and manage some of Ireland's extensive peat resources on an industrial scale, in accordance with government policy at the time. Bord na Móna lands extend to approximately 80,000 ha in total and are located mainly in the Irish midlands. Bord na Móna currently manages and operates a portfolio of thermal and renewable assets, namely Edenderry Power Plant a peat/biomass co-fired electricity generating unit, Cushaling peaking plant, Cloncreen Bellacorick, Mountlucas, Bruckana and Oweninny wind farms, Derrinlough windfarm (under construction), Timahoe North solar farm and the Drehid landfill gas facility.

4.1.2 Bord na Móna has a long track record of developing energy projects, dating back to the development of the first generation of peat-fired power stations. In recent times, the business has gone through radical change, announcing the new "Brown to Green" strategy, committing to the cessation of peat harvesting, and focusing on developing climate solutions in renewable energy, sustainable waste management, carbon storage, and biodiversity conservation. A key objective of this strategy involves using the land to continue to underpin Ireland's energy independence by developing green, sustainable energy sources to assist with Ireland's commitment to achieve 70% renewable electricity by 2030.

4.1.3 It is recognised that to achieve these targets there is a requirement for gas-fired power plants in support of a high variable renewable electricity system as part of the transition to 80% reduction in carbon emissions by 2030 and ultimately a carbon net zero emissions by 2050. It is appropriate for Bord na Móna in its role in development of renewable energy projects up to 2 GW, that it would support variability in supply through development of efficient flexible gas-fired electricity supply. Gas-fired power generation will help ensure security and stability of supply to underpin demanding renewable targets and give investment certainty.

5.0 IS THE PROPOSED DEVELOPMENT LIKELY TO RESULT IN SIGNIFICANT EFFECTS ON THE ENVIRONMENT?

5.1.1 Table 1.1 provides a summary of the sensitive receptors surrounding the Site and the conclusions reached in relation to whether the Proposed Development will have any likely significant environmental effects.

5.1.2 The opinions below have been drawn from a systematic review of the Site, available background information and the proposed plant against the requirements of the EIA Regulations.

6.0 SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

The criteria for determining whether a development would or would not be likely to have significant effects on the environment have been reviewed and a summary is provided in Table 1.2. The table also details the mitigation and documents which would be developed and submitted to support a planning application including an Environmental Impact.

Table 1.1: Summary of the Sensitive Receptors Surrounding the Site

ENVIRONMENTAL TOPIC	SENSITIVE RECEPTORS
Air Quality	There are human health sensitive receptors identified for Air Quality within the study area, the closest being some isolated properties along the R400. There are also residential properties in Rochfordbridge and Rhode. There are also a few ecological receptors identified. The nearest SAC / SPA is Raheenmore Bog SAC, located approximately 7.4km from the stack. The closest NHA/pNHA is Milltownpass Bog NHA, approximately 6km from the stack. Black Castle Bog NHA is approximately 8km from the stack. Grand Canal pNHA south of the 400kV substation.
Climate Change and GHG	The receptor for the impacts of climate change and greenhouse gas emissions is the Proposed Development across all lifecycle phases, from construction to operation and ultimate decommissioning. This would include the workforce, plant and machinery during the construction and decommissioning phases, and the physical assets of the Proposed Development and its workforce during the operational phase. The receptor for all greenhouse gas emissions is the global climate.
Cultural Heritage	The Proposed Development and Overall Project site is located in an area of moderate to high archaeological potential where a significant number of archaeological sites from the bogs in the surrounding environs have been identified. There is the possibility that further currently undiscovered archaeological assets exist within the boundaries of the Site. There are no assets listed under the National Inventory of Architectural Heritage or Record of Protected Structures within or in close proximity to the Proposed Development.

ENVIRONMENTAL TOPIC	SENSITIVE RECEPTORS
Biodiversity	There are 7 no. international nature conservation designations within 15km of the Proposed Development and Overall Project site: Raheenmore Bog SAC, Split Hills and Long Hill Esker SAC, Lough Ennell SAC, Lough Ennell SPA, Mount Hevey Bog SAC, The Long Derries Edenderry SAC, and Wooddown Bog SAC; and 17 no. nationally designated sites located within 15km of the Proposed Development Site. This includes 11 no. pNHA sites: Grand Canal, Raheen Lough, Raheenmore Bog, The Long Derries Edenderry, Murphy's Bridge Esker, Rahugh Ridge (Kiltober Esker), Ardan Wood, Split Hills and Long Hill Esker, Lough Ennell, Mount Hevey Bog, Royal Canal; and 6 no. NHA sites: Daingean Bog NHA, Black Castle Bog NHA, Milltownpass Bog NHA, Cloncrow Bog (New Forest) NHA, Nure Bog, Wooddown Bog SAC. None of these fall within the Proposed Development Site. The 2021 survey, supported by similar surveys in 2013, 2014, 2016, 2018, 2019, and 2020, demonstrates that Derryarkin Bog has substantial importance for breeding birds. Marsh fritillary larval webs have been recorded inside or close to the Proposed Development in 2022, and suitable habitat also exists within the Proposed Development boundary. Several badger setts were recorded within or in proximity to the Proposed Development in 2023.Six buildings have been recorded with evidence of bats, and an additional bridge structure has Low suitability. An otter holt has been recorded near the 220kV buried cable route. The Grand Canal, just to the south of the site, is of national importance as a pNHA, and is of high value for a range of coarse fish species, European eel, and foraging otter. Of the other watercourses, the Yellow River is the most significant, with evidence of white-clawed crayfish, otter, Atlantic salmon, brown trout, lamprey, and European eel found near the site or slightly further downstream.
Landscape and Visual	The proposed emission stacks will be 60 m high. Lands surrounding the Site are typically low density and rural in nature, principally historic peat harvesting and agriculture. Views experienced from locations such as settlements, recognised routes and popular vantage points used by the public have been included in the assessment. Receptors are the viewers at these locations.
Noise and Vibration	The NSR Noise Sensitive Receptors (NSRs) located nearest are likely to be most exposed to the noise emissions from the Proposed Development and Overall Project. 7no NSRs have been identified.

ENVIRONMENTAL TOPIC	SENSITIVE RECEPTORS
Water Environment	The Site falls within the Boyne WFD surface water catchment and the Athboy WFD Groundwater body. Large areas of the surrounding environs of the Proposed Development are peatlands. Several segments of the Yellow and Mongagh rivers are within or in proximity to the Proposed Development as well. The Mongagh River itself is a tributary of the Yellow River and flows from west to east before joining the Yellow River, south of Castlejordan, just west of Clongall Bridge. The Yellow River runs west to east and dissects Derryarkin and Ballybeg Bog before crossing the R400 road. Ballybeg bog is bisected by the Coolcor Stream which is a tributary of the Yellow River. The Coolcor Stream has been canalised and flows west to east through Ballybeg bog. All rivers within the Site ultimately join to the Yellow (Castlejordan) River with the exception of the overgrown drainage ditch located at the southern end of Ballybeg Bog which eventually discharges to the Esker River. The closest point to the Mongagh River is c. 500 north from the Main Development Area while the electricity connection route will cross segments of the Yellow River in two instances. In addition, the 400kV substation is 0.5k m of the Grand Canal Main Line West (Barrow). Due to the proximity of the Site to the rivers, there is potential for fluvial flooding. According to Floodinfo.ie, indicative fluvial flood mapping indicates out of bank flooding from these rivers, meaning flooding may occur on the Proposed Development Site. No pluvial flood extent is available; therefore, the Site has the potential for pluvial flooding.
Soils and Geology	The majority of the Site extends over cutover peat. The Main Development Area is also underlain by limestone till (carboniferous) and hardstanding surfaces. The 400kV substation is also underlain by limestone till (carboniferous) in addition to some small areas where bedrock is at surface. Groundwater vulnerability is, for the majority of the Proposed Development and Overall Project low, and the aquifer is described as 'Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones'. However, the 400kV substation and the Gas Connection Corridor are located in areas were groundwater vulnerability ranges from moderate to high or extreme. Two locations at the south-eastern corner of the Main Development Area have been identified as historical dumping grounds for waste generated on-site. Waste uncovered during investigations carried out on May 11th 2009, were classified as both hazardous and non-hazardous. These included but weren't limited to Volatile Organic Compounds (VOCs). Total Petroleum Hydrocarbons (TPH), and heavy metals. A generic quantitative risk assessment (GQRA) was carried out in 2013 to assess the level of Contaminants of Potential Concern (COPC's) in the soil and associated risks and found that no further corrective actions were needed as the risks assessed were deemed to be acceptable.
Traffic and Transport	Access to the Main Development Area will be through the existing site access on the R400 road. Other roads on the surrounding environs include: Junction 3 on the M6 motorway for Rhode and Rochfortbridge; L1009 and L10091; a private road along R400 leading to Kilmurray S&G; R441; and L1010 Road.
Land Use	The majority of the Proposed Development is located on peatlands within the Bord na Móna Energy Park, with the exception of the 400kV substation, which are located on lands historically used for agriculture. The surrounding environs are mostly pastures, agricultural lands, and low density residential.

ENVIRONMENTAL TOPIC	SENSITIVE RECEPTORS
Population and Human Health	The closest residential receptors to the Main Development Area are c. 4km north-west. A number of residential receptors are within 500 m of the Electricity Grid Connection and the Gas Connection Corridor.

Table 1.2: Summary of likely significant effects

ENVIRONMENTAL TOPIC	LIKELY EFFECTS	COMMENT
Air Quality	Construction Phase: The construction phase could give rise to potential localised air quality effects from traffic and dust generation. Operational Phase: Emissions associated with combustion plant in the operational phase have the potential to affect human health and ecological receptors. Emissions during operational phase will be controlled by the IE licence. Decommissioning Phase: There will be a decommissioning plan that will include dust management practices considered to be best practice at that time. Any additional mitigation will be identified if conditions have changed at the time decommissioning is progressed.	Mitigation provided within Construction Environment Management Plan (CEMP) will safeguard from any significant effects during construction. Embedded Mitigation included within the Proposed Development design, such as the construction of an appropriate stack and emission reduction system, will safeguard from any significant effects during operation.

ENVIRONMENTAL TOPIC	LIKELY EFFECTS	COMMENT
Climate Change and GHG	Climate effects across all lifecycle stages: • Increases in the severity and frequency of extreme weather events; • Changes in precipitation levels; and • Increases in average and peak temperatures. Construction phase – Greenhouse gases (GHG) emissions from: • The raw material extraction and manufacturing of products required to build the Proposed Development; • Transportation of materials to site, and transportation of waste away from site; • Construction activities; • Disposal of waste materials; • Transportation of workers to and from site; • Consumption of water and disposal of wastewater; and • Variations in the carbon stocks in vegetation and soil due to land use change. Operational phase – emissions from: • Consumption of natural gas and other fuels; • Consumption of any electricity imported from the grid; • Transportation of workers to and from site; • Transportation and disposal of operational waste; • Consumption of water and disposal of wastewater; and • Manufacture, supply and transportation of replacement materials required for operational maintenance. Decommissioning phase – emissions from: • Demolition and site clearance activities; • Reuse, recycling or disposal of waste materials; • Transportation of workers to and from site; and • Consumption of water and disposal of wastewater.	Likely climate impacts will be taken into account within the design of the Proposed Development. This will embed climate resilience into the design to reduce any residual risks of climate impacts. The CEMP will provide details of embedded GHG mitigation measures to be applied during the construction phase. Further mitigation can be achieved through the innovative design, the use of locally-sourced and low-carbon materials, and streamlined construction techniques. Mitigation during the operational phase will rely on the Proposed Development running for no longer than necessary to maintain security of electricity supply; operational emissions from the consumption of natural gas are likely to account for a large majority of overall lifecycle GHG impacts. A Decommissioning Plan will be developed that will secure GHG mitigation at the end of life. It is likely that the GHG impacts of decommissioning will be minimal due to the ongoing decarbonisation of supply chains, transport systems and waste management.

ENVIRONMENTAL TOPIC	LIKELY EFFECTS	COMMENT
Cultural Heritage	Construction Phase: The he Proposed Development and Overall Project is located in an area of moderate to high archaeological potential where a significant number of archaeological sites from the bogs in the surrounding environs have been identified. There will be no physical impact to recorded heritage assets within the Proposed Development, but there is potential for further unrecorded archaeological remains to exist *in situ* within the Proposed Development boundary. Likely effects will be impacts to the settings of designated heritage assets arising from the presence of the Proposed Development as well as dust and noise arising from construction related activities, and potential damage of previously undiscovered archaeological assets. Operational Phase: Setting impacts to designated heritage assets arising from the physical presence of the Proposed Development will continue during the Operational phase. This includes the emissions stacks and overhead powerlines. Decommissioning Phase: The decommissioning phase will see the removal of the physical presence of the Proposed Development. This has the potential to impact unrecorded archaeological deposits which were uncovered during construction phase but remain *in situ*. The removal of the physical presence of the Proposed Development will reverse any impacts to the settings of designated assets. Similar to construction phase.	Embedded mitigation to avoid/reduce adverse impacts on designated assets have been incorporated into the design of the Proposed Development. These include utilising existing railway routes where possible for the discharge connection and Electricity Grid Connection routes. Measures included within the scheme design to be adopted during construction would be adopted as described in the Outline CEMP to reduce the impact of noise and dust during construction. This would include limiting the hours of work and vehicle movements. Pre-construction archaeological testing will be carried out within areas of archaeological potential where ground disturbance will be required (power station and substations) while archaeological watching brief will be required for construction works along the overhead powerline pylon bases and cable routes.

ENVIRONMENTAL TOPIC	LIKELY EFFECTS	COMMENT
Biodiversity	All the potential impacts of the Proposed Development will be considered in the NIS, the broad categories of impact below could arise during the construction, operation and / or decommissioning of the Proposed Development and are considered, where potentially relevant to relation to the ecological features scoped into this assessment. Likely effects include: • Permanent and / or temporary loss or degradation of habitats during construction, and potentially decommissioning also; • Airborne pollution as a result of emissions during construction, operation and / or decommissioning of the Proposed Development • Disturbance of animal species during the construction, operation and / or decommissioning due to increased noise, vibration, lighting, or the presence of personnel, plant and / or machinery. • Damage or destruction of the resting places of protected or notable animal species during construction and decommissioning of the Proposed Development. • Displacement of animals during all phases of the Proposed Development • Injury or mortality of plant or animal species during construction and decommissioning • The spread of invasive non-native species during construction and decommissioning.	Mitigation provided within CEMP will safeguard protected species from likely significant effects during construction. Embedded Mitigation included within the Proposed Development design, such as the construction of an appropriate stack and emission reduction system, will safeguard from any significant effects during operation of the Proposed Development.

ENVIRONMENTAL TOPIC	LIKELY EFFECTS	COMMENT
Landscape and Visual	Construction Phase: Likely significant landscape and visual effects of construction works will concentrated in areas located in close proximity from the boundary of the Proposed Development Site and along roads where construction traffic will travel. Visual effects of the Proposed Development construction phase will also relate to cranes and scaffolding albeit these will be temporary features. Operational Phase: Visual effects of the Proposed Development design are likely significant from locations with open or partial views of primarily the proposed emissions stack and sections of the building. Decommissioning Phase: Similar to construction phase.	The principal visual mitigation measures are inherent in the design of its architecture including the colour scheme of the various proposed development components. Embedded mitigation included within the scheme design to be adopted during construction would be adopted as described in the CEMP to reduce landscape and visual effects during construction, including: • Minimise external lighting related to construction works; and • Removal of temporary vehicle parking facilities as well as compounds, material and plant storage facilities following the completion of construction works.
Noise and Vibration	Construction Phase: The predicted construction noise, and noise from the increase in traffic during the construction phase are likely effects to be assessed. Operational Phase: Noise during the operational phase of the development are likely effects during the operational phase. The noise levels during operational phase will be controlled by the IE licence.	The anticipated construction works are not predicted to result in significant construction noise effects. Mitigation as set out in the noise assessment (and subsequent EIAR chapter) and the CEMP will minimise construction noise impacts. The anticipated volume of construction traffic is not predicted to result in significant increases in traffic noise levels on nearby local roads. No specific mitigation measures are proposed. With mitigation in the form of the choice of plant significant operational phase noise effects are not predicted.

ENVIRONMENTAL TOPIC	LIKELY EFFECTS	COMMENT
Water Environment	Construction Phase: • Impacts on surface and groundwater water quality due to deposition or spillage of soils, sediments, oils, fuels, or other construction chemicals/ wastewater, or through mobilisation of contamination following disturbance of contaminated ground, sediments, or groundwater, or through uncontrolled site run-off; • Dewatering of excavations, if required, may increase discharges from the site of potentially contaminated construction site runoff; • Potential increase in volume and rate of surface water runoff from new impervious areas during construction, leading to an impact on flood risk; • Increased risk of groundwater flooding or recharge as a result of any below ground excavations; and • Alteration in fluvial and overland groundwater flow paths as a result of works associated with the Proposed Development and Overall Project. This may increase the associated flood risk. Operational Phase: • Impacts on receiving surface and groundwater bodies from pollutants and sediments in surface water runoff (including accidental chemical spillages); • Potential nutrient enrichment/acidification of waterbodies located in proximity to the Site from atmospheric deposition of pollutants emitted from the generation equipment; • Changes in the river hydrology from water discharge; and • Potential increase in volume and rate of surface water runoff from new impervious. Decommissioning Phase: Similar to construction phase.	Mitigation provided within CEMP will safeguard from any significant effects during construction. Embedded mitigation included within the scheme design such as the construction of a Surface Water Drainage system will safeguard from any significant effects during operation of the Proposed Development.

ENVIRONMENTAL TOPIC	LIKELY EFFECTS	COMMENT
Soils and Geology	Construction Phase: • Mobilisation of existing contaminants in soil as a result of ground disturbance; • Introduction of new contamination to the subsurface as a result of spillages; • Mobilisation of existing contaminants in soil as a result of ground disturbance into surface runoff and surface water receptors; • Migration of introduced contaminants in soil as a result of spillages into surface water receptors; • Mobilisation of existing contaminants in soil as a result of ground disturbance into groundwater; • Migration of introduced contaminants in soil as a result of spillages into groundwater receptors. Operational Phase: • Permanent loss of approximately of existing industrial land for the proposed development; • Permanent loss of approximately of existing peatland for the proposed development; • Introduction of new contamination to the subsurface as a result of leakages from the CCGT and OCGT machinery; • Migration of introduced contaminants in soil as a result of accidental spillages or leakages from the CCGT and OCGT machinery into surface water receptors; • Migration of introduced contaminants in soil as a result of accidental spillages or leakages from the CCGT and OCGT machinery into groundwater receptors. Decommissioning Phase: • Damage to soil structure through smearing and compaction is not anticipated; • Introduction of new contamination to the subsurface as a result of spillages; • Migration of introduced contaminants in soil as a result of spillages into surface water receptors; • Migration of introduced contaminants in soil as a result of spillages into groundwater receptors;	Embedded mitigation to avoid/reduce adverse impacts on soils and geology have been incorporated into the design of the Proposed Development. These include utilising existing railway routes where possible for the discharge connection and Electricity Grid Connection routes. Prior to construction starting onsite, a CEMP will be prepared by the Contractor to be approved by the planning authority. The Final CEMP will detail the measures necessary to avoid, prevent and reduce adverse effects where possible upon soil and geological receptors. The CEMP will be supported by a Water Management Plan (WMP), which will provide greater detail regarding the mitigation to be implemented to protect the water environment from adverse impacts during construction.

ENVIRONMENTAL TOPIC	LIKELY EFFECTS	COMMENT
Traffic	Construction Phase: The additional traffic generated on all surrounding roads is likely to have a negligible impact in traffic terms. Operational Phase: No significant effects expected due to low traffic generation and infrequency of outages. Affects arising from the process of decommissioning of the Proposed Development are considered to be of a similar nature and duration to those arising from the construction phase and have not been considered separately.	Due to the low traffic generation, the traffic impact will have no significant effects and is temporary in nature. However, notwithstanding this, a Construction Traffic Management Plan (CTMP) will be in place to ensure work activities in, near, or having impact upon the public highway, are undertaken safely and with minimal impact on traffic movement and existing infrastructure throughout the works programme.
Land Use	The majority of the Proposed Development is within the existing Bord na Móna Energy Park complex. Land-take will be required for the lands where the 400kV substation is proposed to be situated.	Mitigation provided within CEMP will safeguard from any significant effects during construction.
Population & Human Health	Likely effects may be increased noise, dust deposition, air pollution, potential spillages into water courses, and increased traffic on the surrounding road network.	This information will be as reported in the technical chapters relevant to human health: • Air & Climate; • Noise & Vibration; • Soils & Geology; • Water Environment; and • Traffic.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1.1 The Scoping Review has outlined the approach, methodology, and topics that will be assessed in respect of the Proposed Development and Overall Project. During construction, the Proposed Development has the potential to give rise to a range of environmental impacts and effects, e.g., arising from construction activities and traffic movements.

7.1.2 Table 1.3 outlines the scope of each environmental topic, specifically the aspects of each assessment that have been scoped in and scoped out of the process.

Table 1.3: Scoping of Assets

ENVIRONMENTAL TOPIC	SCOPED INTO THE EIA	SCOPED OUT OF THE EIA
Air & Climate	Construction Phase: Impacts to European and national ecological sites, biodiversity, human health, and amenity from construction phase activities and on-site operational emissions to air. Impacts to climate from disturbance of peatlands. Operational Phase: Impacts to climate from emissions from the power plant operation.	Operational Phase: Impacts to European and national ecological sites, human health, and amenity from road traffic emissions due to the minimal traffic generation.
Cultural Heritage	Construction Phase: Physical impacts upon previously unrecorded archaeological assets. Settings impact to designated heritage assets (archaeological sites and Protected Structures). Operational Phase: Settings impacts to heritage assets.	Construction and Operational Phase: Impacts to Architectural Conservation Areas.
Biodiversity	Construction Phase: General impacts from construction, such as loss of grassland, hedges, and trees which may also support protected species including invertebrates, bats, and breeding birds. Pollution of freshwater habitats from contaminated surface-water runoff, causing potential displacement or injury/mortality to species present. Disturbance or displacement of breeding birds, invertebrates, and other species through noise, light and visual disturbance. Disturbance or displacement of birds and other species through noise, light, and visual disturbance. Physical damage or disturbance of nesting sites. Mortality/injury of protected species. Operational Phase: Pollution of freshwater habitats from contaminated surface-water runoff, causing potential displacement or injury/mortality to species present.	Construction and Operational Phase: Impacts to European and national sites. Impacts to non-statutory sites and Ancient / Long-established Woodland. Impacts to habitats which are of Site or negligible value. Impacts to species which are not present on Site or may use the Site only sporadically or to a limited extent for commuting and foraging.

ENVIRONMENTAL TOPIC	SCOPED INTO THE EIA	SCOPED OUT OF THE EIA
	Indirect impacts from changes in the river hydrology linked to water discharge. Disturbance or displacement of birds and other species through noise, light, and visual disturbance. Mortality/injury of protected species.	
Landscape and Visual	Operational Phase: Effects on physical and visual appearance and character of the landscape as it is experienced today. Effects on national and regional landscape character areas/types. Effects on local landscape policy areas. Effects on walking and cycling routes.	Operational Phase: Effects on heritage assets. Effects on historic landscapes. Effects on protected views and prospects.
Noise and Vibration	Construction Phase: Impact of construction noise construction traffic. Operational Phase: Impact of operational noise.	Construction Phase: Impact of construction vibration due to the intervening distance between the works and sensitive receptors. Operational Phase: Impact of operational vibration. Impact of operational traffic due to the minimal traffic generation.
Water Environment	Construction Phase: Impact on water bodies from potential pollution events, including surface runoff. Increased risk of groundwater flooding or recharge as a result of any below ground excavations. Impact on flood plains associated with development. Operational Phase: Impact on water bodies from potential pollution events, including surface runoff and atmospheric deposition of pollutants from the power plant, and water discharge. Changes in the river hydrology from water discharge. Impact on flood plains associated with development. Potential Increase in fluvial and pluvial flood events due to larger number of impermeable surfaces	Construction and Operational Phase: Impacts to European and national ecological sites.

ENVIRONMENTAL TOPIC	SCOPED INTO THE EIA	SCOPED OUT OF THE EIA
	Flood Risk Assessment to be carried out to gain better understanding of potential flood risk (only fluvial indicative flood extents are available on Floodinfo.ie).	
Soils & Geology	Construction and Operational Phase: Impact to soils and bedrock at the Site. Baseline Environmental site investigation undertaken, and Generic Quantitative Risk Assessment (GQRA) report completed.	
Traffic	Construction Phase: Impact of construction traffic including acknowledgment of abnormal load deliveries.	Operational Phase: Operational traffic assessment due to the minimal traffic generation.
Land Use	Operational Phase: Assessment of Land Use impacts on different land use types including residential, community, industry and business development land, telecommunications, and aviation.	Operational Phase: Effects on heritage assets. Effects on conservation areas.
Population & Human Health	Construction and Operational Phase: Key population statistics and data, and aspects of the technical assessments that are relevant to human health.	Construction and Operational Phase: Human Health Assessment. Impact of the Proposed Development on the property prices assessment
Material Assets	Construction and Operational Phase: Impact of construction and operational phases waste generation on available landfill capacity in the Eastern Midlands region. Impact on material assets such as electrical and gas utilities during construction and operational phases.	Construction and Operational Phase: Staff generated waste.
Major Accidents and Disasters	Construction and Operational Phase: Effects of major accidents and disasters, both natural and man-made, on: population and human health; biodiversity; land and soil; water and groundwater; air and climate; material assets; cultural heritage; and landscape.	