S. 37

File With _____

SECTION 131 FORM

Appeal NO: ABP - 313583-22 ☐ **Defer Re O/H**

TO:SEO

~~H~~aving considered the contents of the submission ~~dated/~~received 13/6/22 from 1st Party I recommend that section 131 of the Planning and Development Act, 2000 be/not be invoked at this stage for the following reason(s): New reports (Bat Survey / Amphibian Survey)

E.O.: [signature] Date: 27/7/22

To EO: _____

Section 131 not to be invoked at this stage. ☐

Section 131 to be invoked – allow 2/4 weeks for reply. ☐

S.E.O.: _____ Date: _____

S.A.O: _____ Date: _____

Ms Mclennan

Please prepare BP 70 **- Section 131 notice enclosing a copy of the attached submission**

to: all parties **Task No:** 289381-22.

Allow 2/3/4 weeks – BP 70

EO: [signature] **Date:** 27/7/22

AA: M. Lenihan **Date:** 27-7-22

S. 37

File With _____

CORRESPONDENCE FORM

Appeal No: ABP -313583-22

M s McCormack

Please treat correspondence received on 13/6/22 **as follows:**

1. Update database with new agent for Applicant/Appellant _____	
2. Acknowledge with BP 20	**1. RETURN TO SENDER with BP** _____
3. Keep copy of Board's Letter ☐	2. Keep Envelope: ☐
	3. Keep Copy of Board's letter ☐

Amendments/Comments
1st Party response to appeal.

4. Attach to file	**RETURN TO EO** ☐
(a) R/S ☑ (d) Screening ☐	
(b) GIS Processing ☐ (e) Inspectorate ☐	
(c) Processing ☐	

	Plans Date Stamped ☐
	Date Stamped Filled in ☐
EO: Gary Dagg	**AA:** Patrick Bu
Date: 14/6/22	**Date:** 14/6/22

First Party Response to Third Party Appeal

Lands adjacent Huntstown Power Station, Hunststown, North Road (R135), Finglas, Dublin 11.

On behalf of

Huntstown Power Company Ltd.

FCC Reg Ref: FW21A/0151
ABP Ref: 313583-22

June 2022

Brock McClure
Planning & Development Consultants
63 York Road
Dún Laoghaire, Co. Dublin.
www.brockmcclure.ie

Executive Summary

Introduction

We note from the outset that the subject proposal complies with the zoning objectives for the site and all relevant national and local planning and environmental policy as demonstrated in the planning enclosures submitted with the application (including information submitted at further information and appeal stages). The proposed development has been carefully thought through and represents an exemplar of how required Information and Communication Technology ("ICT") infrastructure can be delivered without prejudicing decarbonisation objectives. In deciding to grant permission on 20 April 2022 subject to 23 no. conditions, Fingal County Council acknowledged the acceptability of the proposal following a thorough assessment by the Planning Authority.

A summary of the response to Appellants' claims made by: 1. An Taisce and 2. BKC Solicitors on behalf of John Conway and Louth Environmental Group is provided below.

The Appellants raise several concerns in their appeals, however, none explicitly state that permission should be refused.

It is important to note that no local residents or businesses appealed Fingal's decision to grant permission. The Applicant has worked with the wider community to allay any concerns that they may have arisen from the proposed development. Response Cover Letter prepared by Brock McClure Planning and Development Consultants refers.

An Taisce

The Appellant claims that:

- The proposed development has not demonstrated compatibility with the emission reduction targets set out under the Climate Action and Low Carbon Development (Amendment) Act 2021 (Act. No. 32 of 2021) ("Climate Act"). i.e. 51% emission reduction by 2030 and net zero by 2050;
- The Applicant's participation in the Emissions Trading Scheme, does not negate, prevent, or act in place of the obligations under the national carbon budgets and sectoral emissions ceiling in accordance with the Climate Act; and
- The proposed development must demonstrate alignment with statutory sectoral emission reduction plans and the broader carbon budget;

The Appellant requests the following items are added to Condition 3:

- That the amount of electricity generated by the new renewable energy projects is equal to or greater than the electricity requirements of the data centre; and
- That the new renewable energy projects are fully operational prior to the commencement of operation of the data centre.

We refer to Section 5.1 of this appeal response which fully addresses An Taisce's concerns relating to the Applicant's obligations in meeting the requirements set out in the Climate Act and Condition No. 3 of Fingal's Notification of Decision to Grant Permission relating to the Corporate Power Purchase Agreements.

Climate Act and Climate Action Plan

The Climate Action and Low Carbon Development (Amendment) Act 2021 (the "Climate Act") was published in July 2021. The purpose of the Climate Act is to provide for the approval of plans 'for the purpose of pursuing the transition to a climate resilient, biodiversity rich and climate neutral economy by no later than the end of the year 2050'. The Climate Act has set a target of a 51% reduction in the total amount of greenhouse gases over the course of the first two carbon periods ending 31 December 2030 relative to 2018 annual emissions.

The 2021 Climate Action Plan ("CAP") provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting a roadmap to reach net-zero emissions by no later than 2050. The plan outlines the current status across key sectors including Electricity, Transport, Built Environment, Industry and Agriculture and outlines the various broadscale measures required for each sector to achieve decarbonisation targets. To date the first carbon budget programme has been adopted but the sectoral emission target ceilings have not yet been set.

In relation to data centres, the CAP 2021 states "The government will review its strategy on data centres to ensure that the sector will be in alignment with sectoral emissions ceilings and support renewable energy targets (62%-81% reduction in emissions by 2030)."

The proposed development will require a Green House Gas ("GHG") emission permit, meaning it will be regulated under the EU-wide Emissions Trading Scheme ("ETS"). Box 2.1 of the Climate Action Plan 2021 states that "emissions from industry sectors covered by the ETS are subject to EU-wide targets set out under EU Effort Sharing Regulation".

Notwithstanding ETS targets, the proposed development has considered the impact on the national carbon budgets in place including the offsetting renewable energy proposals set out below. It is the intention that the proposed development will not prejudice the achievement of any targets set out in the Climate Act and CAP.

National carbon budgets and sectoral emission ceilings

The first carbon budget programme proposed by the Climate Action Advisory Council ("CCAC"), approved by Government and adopted by both Houses of the Oireachtas comprises three successive 5-year carbon budgets, sets out the total emissions allowed under each budget, as well as the average annual reduction for each 5-year period.

The impact of the emissions associated with the proposed development has the potential to be up to 0.9% of the total Carbon Budget of 646,000,000 tonnes CO2 over the period 2021-2035. This figure represents a worst-case scenario (i.e. development operating at its 150MW full capacity all year round & based on present day carbon intensity). Having regard to the points below, the emissions associated with the development will, in reality, be less than 0.9% of the total Carbon Budget.

- During the operational phase, the development will consume on average a much lower level of energy than its design capability of 150MW, and therefore the predicted total annual emissions will be significantly less;
- For every unit of energy consumed by the data centre, a unit of new renewable energy generation would be despatched to the wider electricity system to offset it;
- The carbon intensity of electricity is predicted to decrease from 296 gCO_2/kWh in 2020 to 100 gCO_2/kWh in 2030 as a result of the increase in renewables to 70% of the electricity market by 2030; and
- The data centre will consolidate the demand from multiple Irish distributed server rooms into one consolidated location. In the absence of a such a facility, the impact of multiple distributed server rooms would be greater. Data centres are at least 84% more efficient than on-premises servers and the associated GHG savings have not been accounted for in the current analysis.

The impact of the operation of the facility, even when assuming a worst-case fuel mix and maximum energy requirements on a day-to-day basis, is deemed *slight* when the Renewable Energy Offset Arrangements outlined below are taken into account.

We note that it is the Minister's responsibility to set sectoral emission target ceilings consistent with the carbon budget. However, these sectoral target ceilings have not yet been set.

Renewable Energy Offset Arrangements

Notwithstanding the current absence of sectoral emission ceiling, the proposed development has had absolute regard to climate impacts and targets from the outset with arrangements and obligations in place which are capable of underpinning new renewable energy generation calculated to offset the energy consumed by the proposed development from the electricity grid.

Through these obligations, it is the goal/intention of the Applicant that for every unit of energy consumed by the data centre, a unit of new renewable energy generation would be despatched to the wider electricity system to offset it, thus delivering the objective of operating the proposed development on a net zero carbon basis, that would not significantly impact Ireland's overall climate targets.

The Applicant is a member of the Energia Group ("Energia") as described in Section 1.1 below. Energia has entered into binding legal agreements with a global technology company (the "End User") to provide Corporate Power Purchase Agreements ('CPPAs') for new renewable energy that will, subject to receipt of a grant of planning, exceed the amount of energy consumed by the proposed development from the electricity grid. Energia has granted the End User exclusivity to its renewable development portfolio for the purposes of these agreements. The End User has also committed to be carbon neutral on a global basis by 2030.

These renewable energy obligations will:

- Be in the form of CPPAs between the Energia and the End User;
- Provide for the establishment of new renewable energy generation projects by Energia, that will not be supported by government or consumer subsidies and will be:
    - Located in Ireland;
    - Phased over the expected ramp up of the energy demand of the proposed development; and
    - In total, are calculated to exceed the expected annual volume of energy consumed on site by the proposed development;

Energia has a portfolio of consented renewable energy projects within the Republic of Ireland totalling 350MW. These include four wind farms with a combined output of 120MW; and five solar parks with a combined output of 230 MW. In total, these projects if constructed will deliver 350 MW of new renewable energy capacity.

The portfolio of consented projects has not yet commenced construction and will not be supported by government incentives such as the Renewable Energy Support Scheme ('RESS'). These renewable development projects require a capital commitment of more than €400m from Energia and require a commercial route to market to secure the financing needed to construct them. Without a commercial route to market, such as through a CPPA, these new renewable developments will not be built.

Furthermore, Energia has invested in and are progressing additional new renewable projects on the island of Ireland, including over 200MW of onshore wind farms, 1,800MW of offshore wind farms and over 500MW of solar parks. These projects would produce far in excess of the expected annual volume of energy consumed by the proposed development and the End User, through the CPPAs, will provide the support to build out this capacity to an extent greater than needed for the energy requirements of the development and further contribute to Ireland meeting its energy policy targets.

Having regard to the above, it is submitted that the proposed application with its objective of operating the proposed development on a net zero carbon basis, has had regard to and is compatible with the targets set out under the CAP.

Renewable energy condition

Each renewable development project is unique in terms of its scale, undertakings and programme. The consented projects will be commenced and constructed in phases over a period of several years to be able to manage resourcing, contracting and financial risk.

The proposed development is to be constructed in phases, ramping up its energy consumption over a period of several years. It will therefore not be capable of consuming its maximum energy requirement of 150MW until at least 7 years after the first data hall building commences construction. Stipulating that all the new renewable developments required to offset the energy consumption of the proposed development should be operational in advance of the commencement of operations, would not have regard for the ramp up of energy consumption of the proposed development which will take considerably longer.

Given the project delivery characteristics set out above, Energia and the End User will have to proceed with entering into CPPAs for the most progressed of the renewable development projects in order to ensure that capacity is available for the commencement of operation of the proposed development. However, entering into CPPAs for the majority of the portfolio envisaged to meet and exceed the expected annual volume of energy consumed on site by the proposed development will only occur, if the proposed development achieves a grant of planning.

It should also be noted that the aforementioned consented renewable projects associated with the CPPAs (totalling 350MW), all have a planning expiry within the next 10 years and so are already time limited. Therefore, it can be confirmed the portfolio of consented renewable development projects, if progressed, must be constructed within the planning permission duration associated with the proposed development.

Taking the above into consideration, it is not practical or appropriate to stipulate the timing and delivery of these renewable projects by way a planning condition associated with the proposed development as proposed by the Appellant.

BKC Solicitors on behalf of John Conway and Louth Environmental Group

We note that the majority of the items raised by the Appellant were raised at the observation stage and were addressed in the planning application and the further information cover letter prepared by Brock McClure Planning and Development Consultants. We submit that the Further Information submitted to Fingal County Council adequately addresses points raised in this appeal.

We also note some duality of items raised in both appeals. Where relevant, items relating to the Climate Act are thoroughly assessed as part of the An Taisce appeal response in Section 5.1 of this response. The section below summarises all other items raised in BKC's appeal on behalf of John Conway and Louth Environmental Group.

A copy of the planning application was sent to CRU for review. No comment was made on the subject application.

All details pertaining to connections to the national grid are made via the concurrent SID application Ref. 311528 refers and were cumulatively assessed as part of both the EIAR, EIAR Addendum and the NIS submitted as part of the subject data centre planning application.

The subject data centre application and associated further information response included a robust assessment of the surrounding environment and potential impacts arising from the subject development, as outlined in the submitted EIA, EIA Addendum and NIS. All conclusions were drawn from the best scientific knowledge of the competent experts and clearly set out in the methodology provided in the NIS submitted with the application at further information stage.

Due to the length of time that has elapsed since surveys were originally conduction in 2019, specific surveys prepared as part of the EIAR have now been updated and are provided to the Board as part of this response. The Amphibian Survey reconfirms the existing site conditions remain unsuitable for amphibians. The Bat Survey reconfirms that no evidence was found of roosting bats in the trees or dwellings on site.

All development in the vicinity of the data centre development was adequately cumulatively assessed as part of the application (including further information response).

All assessments relating to water consumption have been carried out in conjunction with agreements from the competent authority - Irish Water.

To this end, we refer to Section 5.2 of this appeal response which fully addresses John Conway and Louth Environmental Group's concerns.

Conclusions

In conclusion, the issues raised by the Appellants are adequately addressed as part of this appeal response. Should the Board be minded to grant permission, we invite suitably worded conditions reflecting those outlined in Fingal County Council's decision and appended to this response for reference.

The Applicant is committed to continue working with the local community and interested parties to deliver this development in accordance with the proper planning and sustainable development of area.

1 Introduction

We, Brock McClure Planning & Development Consultants, 63 York Road, Dún Laoghaire, Co. Dublin are instructed by our client **Huntstown Power Company Ltd., Liberty Building 10th Floor, Blanchardstown Retail Park, Blanchardstown, Dublin 15,** to lodge this first party response to third party appeals made by An Taisce (Board letter dated 17 May 2022) and John Conway (Board letter dated 19 May 2022) for the development proposed in this case. FCC Ref. FW21A/0151 and ABP Ref: 313583-22 refers.

This Appeal Response has been prepared by Brock McClure Chartered Town Planning & Development Consultants, with inputs from:

- Brock McClure - Planning & Development Consultants
- AWN - Ecology

The response to the appeals are set out in Section 5 of this report and accompanying documents prepared by the Applicant.

The appeal response is made in writing and is submitted to the Board 4 weeks from the date of the Board's letters 17 May 2022 and 19 May 2022 (on or before 13 June 2022 and 15 June 2022).

We ask that all future correspondence is forwarded to this office at 63 York Road, Dún Laoghaire, Co. Dublin.

1.1 Applicant Background

The Applicant is a member of Energia, a modern and innovative energy company operating across the island of Ireland with its headquarters in Blanchardstown, Dublin. The Group primarily operates through three complementary businesses: Customer Solutions, Flexible Generation and Renewables. The Group employees over 900 people and is one of only 40 companies in Ireland to have achieved the Responsible Business Mark from Business in the Community Ireland.

In 2019 Energia announced its Positive Energy investment programme, a €3bn programme focused on new investments in renewable energy, including onshore and offshore wind, solar, battery storage and green hydrogen. This will further increase the Group's contribution to the achievement of the energy transition on the island of Ireland.

As a leading energy provider and infrastructure investor, Energia already delivers 21% of Ireland's wind power. Energia supplies over 800,000 homes and businesses across the island of Ireland and is Ireland's greenest electricity supplier. Energia has a long history of investment in the Finglas area dating back to the year 2000. It owns and operates two combined-cycle gas turbine power plants at its Huntstown Campus in North County Dublin that are capable of meeting 11% of peak energy demand in the all-Ireland electricity market. These units are critical to the security of supply in the greater Dublin area. The Group is currently commissioning the largest bioenergy plant in Ireland at the Huntstown campus. This facility will use anaerobic digestion to convert organic waste such as garden and food waste from the North Dublin/South Meath catchment area into methane rich biogas which will then be used to generate renewable electricity.

2 Site Context

2.1 Subject Site

The subject site is located to the north west of the M50 orbital ring, on lands adjacent to Huntstown Power Station, North Road, Finglas, Dublin 11. The data centre site extends to c.13.3ha of mainly greenfield (agricultural) lands and 2 no. existing dwellings located to the east of the site.

The surrounding area is characterised by a variety of energy, industrial, commercial, quarrying, agricultural and residential uses. The subject site is generally bounded to the north by the Dogs Trust (Dog Rescue and Rehoming Charity), to the south by a vehicular entrance leading to the Huntstown Quarry and further south west by an Anaerobic Digestion Plant, to the east by the North Road (R135) and two residential properties fronting the R135 (demolition of both is included in this application) and to the west by Huntstown Power Station.

A number of large logistics warehouse parks are located to the north east 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 greenfield site is free from development. The topography of the site falls slightly in an east west direction (77.5AOD - 79.5AOD). A subsurface archaeological feature is identified south of the northern site boundary. A series of hedgerows are located throughout the site including the site perimeter.

A drainage ditch located on the western site boundary forms a partition between the subject site and the adjoining Huntstown Power Plant. A set of 110kv and 38kv overhead lines traverse the site in a north - south direction connecting to the Finglas 220Kv substation complex to the south east of the site. A proposal for undergrounding these lines was subject to a separate planning application from Fingal County Council by TLI Group – Reg. Ref. FW21A/0144 refers. Permission was granted 11 November 2021.

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.

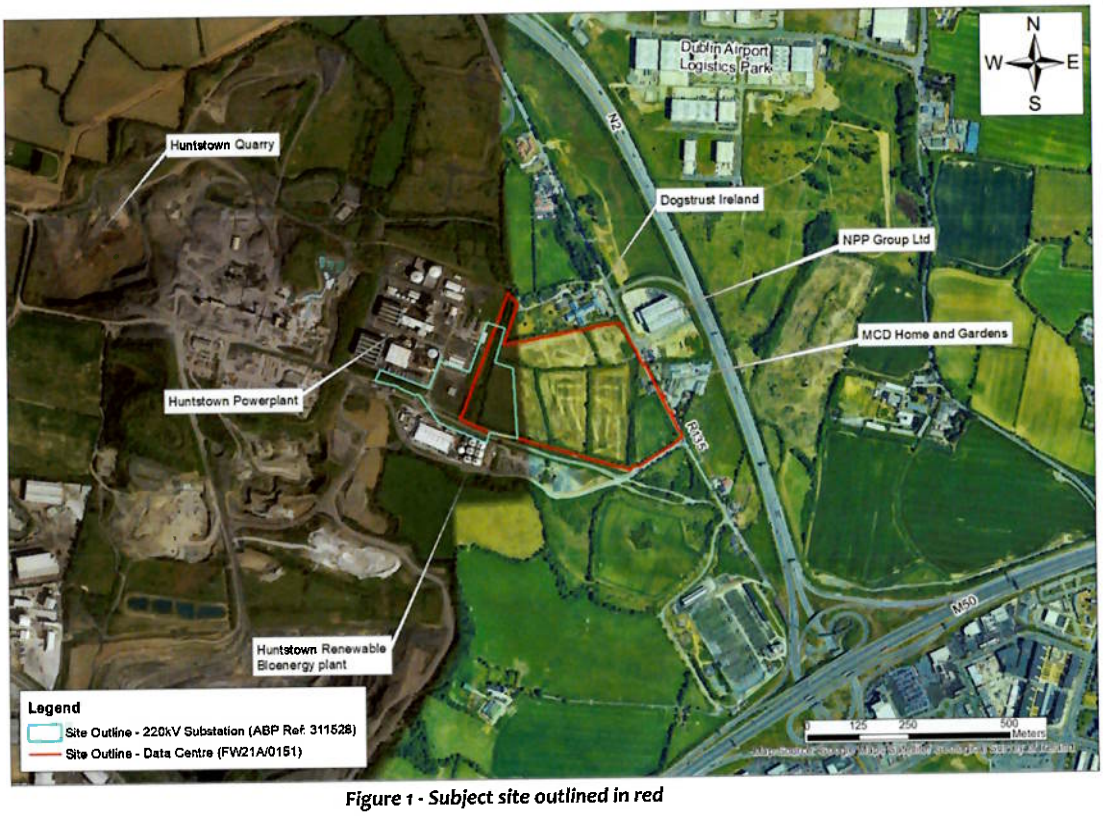

Figure 1 - Subject site outlined in red

The Huntstown Power Stations directly adjoin the subject site to the west and are within the ownership of the Applicant. The Power Stations have been operating on the adjoining site since 2002. The complex includes two gas fired Combined Cycle Gas Turbine (CCGT) electricity generation stations and ancillary structures/plant.

The implementation of the data centre project would directly support the long term viability of these neighbouring plants including its continued workforce level on site.

The 4.8MW Huntstown Bioenergy Plant (EPA Licence P0993-02), located adjacent to the two existing Energia power stations and the subject site, have the capability to process up to 99,900 tonnes per year of organic waste from the Greater Dublin area, helping to protect the environment, reduce greenhouse gas emissions and provide organic fertiliser for agriculture.

The Dogs Trust rehoming charity is located directly to the north of the subject site. The centre which opened its doors in 2009 is Irelands largest dog welfare charity and employs upward of 83 staff members and volunteers.

The protection of the amenity of the Dogs Trust property has been a key consideration during the design process. The design team has endeavoured to achieve a balance between the amenity of sensitive receptors such as the Dogs Trust and the functional requirements of the proposal.

The Applicant places a lot of importance on working with the local community to build acceptance for any large-scale infrastructure it is developing in this already heavily industrialised area. Given the potential impact of the development on the two residential properties to the east of the site within the subject site boundary, the Applicant worked with the residents to relocate them to appropriate properties in the area so that they could still be close to the community. The two properties in question have been acquired by the Applicant and are proposed to be demolished under the subject proposal. The Applicant has also worked with the wider community to allay any concerns that they may have from the proposed development.

3 Planning Application Lodged

3.1 Description of Development

Permission is being sought for the following:

- Demolition of 2 no. existing residential dwellings and ancillary structures to the east of the site (c.344sqm total floor area);
- Construction of 2 no. data hall buildings (Buildings A and B) comprising data hall rooms, mechanical and electrical galleries, ancillary offices including meeting rooms, workshop spaces, staff areas including break rooms, toilets, shower/changing facilities, storage areas, lobbies, outdoor staff areas, loading bays and docks, associated plant throughout, photovoltaic panels and screened plant areas at roof levels, circulation areas and stair and lift cores throughout;
- External plant and 58 no. emergency generators located within a generator yard to the east and west of Buildings A and B at ground level. The area is enclosed by a c.6.5m high louvred screen wall;
- The proposed data halls (Buildings A and B) are arranged over 3 storeys with a gross floor area of c.37,647sqm each;
- The overall height of the data hall buildings is c.28m to roof parapet level and c.32m including roof plant, roof vents and flues. The total height of Buildings A and B does not exceed 112m OD (above sea level);
- The proposed development includes the provision of a temporary substation (c.32sqm), water treatment building (c. 369sqm and c.7.7m high), 7 no. water storage tanks (2,800m3 in total and c.6.4m high each), 2 no. sprinkler tanks (c.670m3 each and c.7.9m high each) with 2 no. pump houses each (c.40sqm and c. 6m high each);
- The total gross floor area of the data halls and ancillary structures is c.75,775sqm;
- All associated site development works, services provision, drainage upgrade works, 2 no. attenuation basins, landscaping and berming (c.6m high), boundary treatment works and security fencing up to c.2.4m high, new vehicular entrance from the North Road, secondary access to the south west of the site from the existing private road, all internal access roads, security gates, pedestrian/cyclist routes, lighting, 2 no. bin stores, 2 no. bicycle stores serving 48 no. bicycle spaces, 208 no. parking spaces including 10 no. accessible spaces, 20 no. electric vehicle charging spaces and 8 no. motorcycle spaces.

A 220kv substation located to the south west of this site is the subject of a separate Strategic Infrastructure Development application to An Bord Pleanála (Reg. Ref. 311528) under section 182A of the Planning and Development Act 2000 (as amended).

The contribution of data centre developments and the importance of cloud-based ICT services are highlighted below:

- Organisations of every type, size and industry sector use the cloud and data centres are a key component of a modern economy and society. The Covid-19 pandemic has highlighted the urgent need for improvements in ICT and the roll-out of high speed broadband nationwide. Many bricks and mortar businesses are already trading and conducting business online to safeguard and continue daily operations. Across all sectors, work environments will be permanently altered with employees expected to continue working from home following the pandemic. The need for high quality data centres is therefore essential to the recovery of the Country and economy post-Covid-19.
- The new whole-of-Government digital strategy, "Harnessing Digital: The Digital Ireland Framework", which was published on 1 February 2022, describes Data Centres as "a core infrastructure enabler of a technology-rich innovative economy, which makes Ireland a location of choice for a broad range of sectors and value-added activities, such as business collaboration, online commerce, banking, and supply chain management.
- Development of ICT infrastructure generates business supplier and sub-supplier businesses, including construction, mechanical and electrical suppliers, professional services and a range of services from local businesses.

- National Planning Framework acknowledges the importance of data centre infrastructure and commits to Ireland as a sustainable destination for ICT infrastructure such as data centres and associated economic activities.
- National, regional and local policy promotes the sustainable delivery of a high quality ICT infrastructure.

4 Planning Authority Decision

Permission was granted on the 20 April 2022 following the receipt of significant further information by the Applicant on 11 February 2022 and revised notices 24 February 2022.

A summary of the 23 no. conditions is appended to this response for more information.

5 First Party Response to Third Party Appeals

Fingal's decision was appealed 2 no. third parties:

1. An Taisce; and
2. BKC Solicitors on behalf of John Conway and Louth Environmental Group.

We note that none of the adjoining landowners or local residents appealed Fingal's decision to grant permission. The Applicant has worked with the wider community to allay any concerns that they may have arising from the proposed development.

Although the Appellants raise several concerns in their appeals, none explicitly state that permission should be refused. On this basis, we conclude the issues are adequately addressed as part of this response. Should the Board be minded to grant permission, we invite suitably worded conditions mirroring those outlined in Fingal County Council's decision and appended to this response for reference.

5.1 An Taisce

The Applicant received notification of appeal from An Bord Pleanála dated 17 May 2022.

The grounds of the An Taisce appeal have been reviewed which relates to (a) the Climate Action and Low Carbon Development (Amendment) Act 2021; and (b) Condition no. 3 set out in Fingal County Council decision. It is noted that the Appellant has not requested An Bord Pleanála to overturn Fingal County Council's notification of decision to grant permission.

The response to these grounds is set out below.

5.1.1 Climate Action and Low Carbon Development (Amendment) Act 2021

The Appellant claims that the proposed development has not demonstrated compatibility with the emission reduction targets set out under the Climate Action and Low Carbon Development (Amendment) Act 2021 (Act. No. 32 of 2021) ("Climate Act").

In addition, the appellant also makes the following statements in relation to carbon budgets and sectoral ceiling emissions:

- *"... the development's participation in the ETS, does not negate, prevent, or act in place of the obligations under the national carbon budgets and sectoral emissions ceiling in accordance with the Climate Act"*
- *"... Individual development must demonstrate alignment with statutory sectoral emission reduction plans and the broader carbon budget".*

In response to the above claims, it is necessary to first examine the legislative background in relation to emissions and climate change. As such, our response addresses:

(5.1.1.1) Legislative background;
(5.1.1.2) Energy requirements;
(5.1.1.3) Alignment with sectoral emission ceilings and carbon budgets;
(5.1.1.4) Emission reduction targets – Emission Trading Scheme; and
(5.1.1.5) Renewable energy offset arrangements.

5.1.1.1 Legislative Background

In order to contextualise the greenhouse gas emissions arising from the operation of the *Huntstown Data Centre, North Road, Finglas, County Dublin*, it is important to understand the legislative basis applicable to these emissions, either from electricity suppliers or the infrequent use of onsite backup generators.

Ireland is party to both the United Nations Framework Convention on Climate Change (UNFCCC) (UNFCC 1992) and the Kyoto Protocol (UNFCC 1997). The Paris Agreement (UNFCC 2015), which entered into force in 2016, is an important milestone in terms of international climate change agreements and includes an aim of limiting global temperature increases to no more than 2°C above pre-industrial levels with efforts to limit this rise to 1.5°C.

In order to meet the commitments under the Paris Agreement, the European Union (EU) enacted '*Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No. 525/2013*' (the "Regulation") (European Parliament and Council of Europe 2018). The Regulation aims to deliver, collectively by the EU in the most cost-effective manner possible, reductions in GHG emissions from the Emission Trading Scheme (ETS) and non-ETS sectors amounting to 43% and 30%, respectively, by 2030 compared to 2005.

Following on from the recently published European Climate Law (EU, 2021), and as part of the EU's "*Fit for 55*" legislative package where the EU has recently committed to a domestic reduction of net greenhouse gas emissions by at least 55% compared to 1990 levels by 2020, the Effort Sharing Regulation is proposed to be strengthened with increased ambition by the year 2030. The proposal for Ireland is to increase the GHG emission reduction target from 30% to 42% relative to 2005 levels whilst the ETS market will also have more stringent reductions from the currently proposed reduction of 43% by 2030 compared to 2005 to a 61% reduction by 2030 based on annual reductions of 4.2% compared to the previous annual reduction level of 2.2% per year (EU, 2021). In terms of the current operation of the ETS, the European Commission reported that the ETS Carbon Market reported a fall of 9% in emissions in 2019 relative to 2018 levels.

The ETS is an EU-wide scheme which regulates the GHG emissions of larger industrial emitters including electricity generation, cement manufacturing, heavy industry and facilities which have greater than 20MW thermal input capacity (which is applicable to the *Huntstown Data Centre*). Under the ETS scheme, there are no country-specific targets.

The non-ETS sector includes all domestic GHG emitters which do not fall under the ETS scheme and thus includes GHG emissions from transport, residential and commercial buildings and agriculture. In contrast to the ETS scheme, Ireland has a country-specific obligation under the Regulation of a 42% reduction in non-ETS GHG emissions by 2030 relative to its 2005 levels.

In 2015, the Climate Action and Low Carbon Development Act 2015 (No. 46 of 2015) was enacted (the 2015 Act). The purpose of the 2015 Act was to enable Ireland '*to pursue, and achieve, the transition to a low carbon, climate resilient and environmentally sustainable economy by the end of the year 2050*' (3.(1) of No. 46 of 2015). This is referred to in the 2015 Act as the '*national transition objective*'. The 2015 Act makes provision for a national mitigation plan, and a national adaptation framework.

The 2019 *Climate Action Plan* (CAP) (Government of Ireland, 2019), published in June 2019, outlined the current status across key sectors including Electricity, Transport, Built Environment, Industry and Agriculture and outlined the various broadscale measures required for each sector to achieve ambitious decarbonisation targets. The 2019 CAP also detailed the required governance arrangements for implementation including carbon-proofing of policies, establishment of carbon budgets, a strengthened Climate Change Advisory Council and greater accountability to the Oireachtas. The 2019 CAP set a built environment sector reduction target of 40 - 45% relative to 2030 pre-NDP (National Development Plan) projections.

In June 2020, the Government published the Programme for Government – Our Shared Future (Government of Ireland 2020). In relation to climate, there is a commitment to an average 7% per annum reduction in overall greenhouse gas emissions from 2021 to 2030 (51% reduction over the decade) with an ultimate aim to achieve net zero emissions by 2050. Policy changes include the acceleration of the electrification of the transport system, including electric bikes, electric vehicles and electric public transport, alongside a ban on new registrations of petrol and diesel cars from

2030. In addition, there is a policy to ensure an unprecedented model shift in all areas by a reorientation of investment to walking, cycling and public transport.

The Climate Action and Low Carbon Development (Amendment) Act 2021 (the 2021 Climate Act) (No. 32 of 2021) was published in July 2021. The purpose of the 2021 Climate Act is to provide for the approval of plans *'for the purpose of pursuing the transition to a climate resilient, biodiversity rich and climate neutral economy by no later than the end of the year 2050'*. The 2021 Climate Act will also *'provide for carbon budgets and a sectoral emissions ceiling to apply to different sectors of the economy'*. The 2021 Climate Act removes any reference to a national mitigation plan and instead refers to both the Climate Action Plan, as published in 2019, and a series of National Long Term Climate Action Strategies. In addition, the Environment Minister shall request each local authority to make a 'local authority climate action plan' lasting five years and to specify the mitigation measures and the adaptation measures to be adopted by the local authority. The Act has set a target of a 51% reduction in the total amount of greenhouse gases over the course of the first two carbon periods ending 31 December 2030 relative to 2018 annual emissions. The 2021 Climate Act defines the carbon budget as 'the total amount of greenhouse gas emissions that are permitted during the budget period'.

The Climate Action and Low Carbon Development (Amendment) Act 2021 (No. 32 of 2021) outlines a series of specific actions including:

- To make a strategy to be known as the 'National Long Term Climate Strategy' not less than once in every five-year period with the first to be published for the period 2021 to 2035 and with each subsequent Strategy covering the next three five-year carbon budgets and also include a longer-term perspective of at least 30 years;
- To adopt a system of carbon budgets which will be determined as part of a grouping of three five-year periods calculated on an economy-wide basis, starting with the periods 2021 to 2025, 2026 to 2030, and 2031 to 2035;
- To introduce a requirement for Government to adopt "sectoral emission ceilings" for each relevant sector within the limits of each carbon budget;
- To request all local authorities to prepare climate action plans for the purpose of contributing to the national climate objective. These plans should contain mitigation and adaptation measures that the local authority intends to adopt;
- Increasing the power of the Advisory Council to recommend the appropriate climate budget and policies;
- Requiring the Minister to set out a roadmap of actions to include sector specific actions that are required to comply with the carbon budget and sectoral emissions ceiling for the period to which the plan relates; and
- Reporting progress with the CAP on an annual basis with progress including policies, mitigation measures and adaptation measures that have been adopted.

In terms of wider energy policy, as outlined in the EPA publication *"Ireland's Greenhouse Gas Projects 2020-2040"* (EPA, 2021) under the *With Additional Measures* scenario, emissions from the energy industries sector are projected to decrease by 25% to 6.3 Mt CO_{2eq} over the period 2020 to 2030 including the proposed increase in renewable energy generation to approximately 70% of electricity consumption:

- In this scenario, it is assumed that for 2020 there is a 40% share of renewable energy in electricity generation. In 2030, it is estimated that renewable energy generation increases to approximately 70% of electricity consumption. This is mainly a result of further expansion in wind energy (comprising 3.5 GW offshore and approximately 8.2 GW onshore). Expansion of other renewables (e.g. solar photovoltaics) also occurs under this scenario.
- Under the With Additional Measures scenario, two peat stations are assumed to run on 100% peat to the end of 2020. For 2020, the operation of the peat plants is determined by the electricity market. The third peat station operates to the end of 2023 with 30% co-firing.

- In this scenario, the Moneypoint power station is assumed to operate in the market up to end 2024 at which point it no longer generates electricity from coal as set out in the 2019 Climate Action Plan.
- In terms of inter-connection, it is assumed that the Greenlink 500MW interconnector to the UK to come on stream in 2025 and the Celtic 700MW interconnector to France to come on stream in 2026" (EPA, 2020).

The 2021 *Climate Action Plan* (CAP) (Government of Ireland, 2021) provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting us on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021. The plan outlines the current status across key sectors including Electricity, Transport, Built Environment, Industry and Agriculture and outlined the various broadscale measures required for each sector to achieve ambitious decarbonisation targets. CAP 2021 also detailed the required governance arrangements for implementation including carbon-proofing of policies and establishment of sectoral emission ceilings and carbon budgets. In relation to data centres, the CAP 2021 states:

"The government will review its strategy on data centres to ensure that the sector will be in alignment with sectoral emissions ceilings and support renewable energy targets (62%-81% reduction in emissions by 2030." (page 11 of CAP 2021)

CAP 2021 also states that in relation to location:

"Further signals will be required to locate demand where existing or future electricity grid is available and close to renewable energy generation" (page 97 of CAP 2021)

CAP 2021 outlines that data centre should be located *"where existing or future electricity grid is available and close to renewable energy generation"*. In this regard, the facility is located adjacent to Huntstown Power Station and Huntstown Bioenergy Plant and in close proximity to the consented solar farms located in south Meath and north Dublin (referred to in Section 5.1.1.5 below) which will connect to the north Dublin electricity transmission system. Thus, the location of this data centre is considered compatible with the recommendations in the CAP 2021.

Box 2.1 of the CAP 2021 states that *"emissions from industry sectors covered by the ETS are subject to EU-wide targets set out under EU Effort Sharing Regulation"*.

5.1.1.2 Energy Requirements

An Taisce have claimed that the proposed development will require 150MW or 1,310GhW of energy annually. It is important to set out the energy requirements for the proposed data centre, which is provided below:

- The proposed development is to be constructed in phases, ramping up its energy consumption over a period of several years. It will therefore not be capable of consuming its maximum energy requirement of 150MW until at least 7 years after the first data hall building commences construction;
- The 150MW quoted represents the energy consumption capability and design capacity for the proposed development, it does not however represent the day-to-day energy requirements. It is important to note that during the operational phase, the development will consume on average a much lower level of energy than its design capability of 150MW; and
- In the wider context, data centres are at least 84% more efficient than on-premises servers and the associated GHG savings associated have not been accounted for in the current analysis[1].

[1] https://blog.aboutamazon.eu/aws/amazon-announces-new-project-in-ireland-as-part-of-commitment-to-be-100-powered-by-renewable-energy-by-2025

Nevertheless, the planning application has used 150MW / 1,310GhW as a possible worst-case scenario for assessment purposes (i.e. the development operating at its 150MW full capacity all year round).

Based on the assumption of the national fuel mix and 150MW of energy consumption, this would translate to approximately 387,900 tonnes[2] of CO2eq per year (i.e. 0.66% of Ireland's total annual emissions based on 2020 assumptions). As noted previously, the data centre will not require a consistent level of 150MW of electricity on a day-to-day basis, and therefore the predicted total annual emissions will be significantly less than that stated above. This is lower than An Taisce's claim that the proposed development equates to 0.82% of Ireland's total annual emissions.

5.1.1.3 Alignment with Sectoral Emission Ceilings and Carbon Budgets

Sectoral Emission Ceilings

The 2021 *Climate Action Plan* (CAP 2021) (Government of Ireland, 2021) provides a detailed plan for taking action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting us on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.

It is the Minister's responsibility to set sectoral emission target ceiling consistent with the carbon budget. However, these sectoral targets ceiling have not yet been set.

Carbon Budgets

The first carbon budget programme proposed by the CCAC, approved by Government and adopted by both Houses of the Oireachtas comprises three successive 5-year carbon budgets.

The total emissions allowed under each budget, and the percentage impact of the proposed development relative to each carbon budget, are set out below (Table 1).

The CAP 2021 provides that the economy-wide carbon budgets will be supplemented by sectoral emissions ceilings, setting the maximum amount of GHG emissions that are permitted in a given sector of the economy during each five-year carbon budget. As noted previously, sectoral emission ceilings have not yet been established by the Minister.

Period	Mt CO2 eq	Annual Impact of Proposed Development on 5 year target. (worst case scenario)
2021-2025	295,000,000 CO2 eq	0.13%
2026-2030:	200,000,000 CO2 eq	0.19%
2031-2035	151,000,000 CO2 eq.	0.25%

Table 1: Ireland's Carbon Budgets & Development Impact

Using the average CO_2 emission factor for electricity generated in Ireland in 2020 (296 gCO_2/kWh (SEAI, 2020)) as a worst-case and based on 150 MW of power required, the facility will use up to 1,310 GWh annually which equates to approximately 387,900 tonnes of CO_2eq per year (based on the national fuel-mix). Thus, the impact of the emissions associated with the proposed development has the potential to be 0.9% of the total Carbon Budget of 646,000,000 tonnes of CO_2eq over the period 2021-2035 (assuming worst case scenario of 150MW on a day to day basis). Given that the average CO_2 emission factor for electricity generated in Ireland by 2030 is likely to be less than 100 gCO_2/kWh (Baringa, 2018))[3], the impact of the operation of the facility will decrease in future carbon budget periods. In accordance with guidance contained within 'Assessing Greenhouse Gas Emissions and Evaluating Their Significance' (IEMA, 2022), where emissions can be compared to an existing carbon budget, the percentage impact the project will contribute to climate change can be determined. The impact of the operation of the facility, even when assuming a worst-case fuel mix and maximum

[2] These figures have been updated to reflect the 2020 data released by SEAI (2021) Energy in Ireland 2021.
[3] Baringa (2018) A 70& Renewable Vision for Ireland in 2030

energy requirements of a day to day basis, is deemed ***slight*** when the Renewable Energy Offset Arrangements outlined below are taken into account.

5.1.1.4 Emission Trading Scheme and Emission Reduction Targets

We note that the proposed development will require a GHG emission permit, meaning it will be regulated under the EU-wide Emissions Trading Scheme (ETS). On an EU-wide basis, the ETS market in 2019 was approximately 1,390 million tonnes CO2eq. Using the average CO2 emission factor for electricity generated in Ireland in 2020 (296 gCO2/kWh (SEAI, 2020)) as a worst-case and based on 150 MW of power required, the facility will use up to 1,310 GWh annually which equates to approximately 387,900 tonnes of CO2eq per year (based on the national fuel-mix). Thus, the impact of the emissions associated with the proposed development has the potential to be 0.028% of the current EU-wide ETS market. Thus, in terms of the ETS, the impact of the operation of the facility, even when assuming a worst-case fuel mix, is **imperceptible.**

Emissions from the proposed data centre development has the potential to be 0.028% of the total ETS market (assuming worst-case scenario of 150MW on a day to day basis). In accordance with guidance contained within 'Assessing Greenhouse Gas Emissions and Evaluating Their Significance' (IEMA, 2022), where emissions can be compared to an existing carbon budget (in this case the ETS), the percentage impact the project will contribute to climate change can be determined. The proposed development will account of 0.028% of the total ETS market and where there is a high sensitivity environment and the magnitude of impact is **imperceptible**, this equates to a **not significant impact.**

In view of its regulation under the ETS, which provides EU wide emissions controls and targets, in order to ensure that required emissions reductions are achieved by 2030 at an EU level, it has been assessed that the development will not have a significant impact.

It should also be noted that the carbon intensity of electricity is predicted to decrease from 296 gCO_2/kWh in 2020 to 100 gCO_2/kWh in 2030 as a result of the increase in renewables to 70% of the electricity market by 2030. Overall, all data centres in Ireland are estimated to account for 1.85% of Ireland's total carbon emissions in 2020 and it is predicted that data centres in Ireland will peak at 2.2% of total GHG emissions in 2025 and will fall or level off after this date.[4]

Having regard to the figures set out above and without any commitments from the Applicant, the data centre development has been assessed to have an ***indirect, long-term, negative and slight impact*** on climate.

5.1.1.5 Renewable Energy Offset Arrangements

Notwithstanding the current absence of sectoral emission ceiling, the proposed development has had absolute regard to climate impacts and targets from the outset with arrangements and obligations in place which are capable of underpinning new renewable energy generation calculated to offset the energy consumed by the proposed development from the electricity grid.

Through these obligations, it is the goal of the Applicant that for every unit of energy consumed by the data centre, a unit of new renewable energy generation would be despatched to the wider electricity system to offset it, thus delivering the objective of operating the proposed development on a net zero carbon basis that would not impact Ireland's overall climate targets. Any associated additional renewable energy supply would also increase energy security through indigenous energy sources.

Energia has already entered into a transmission connection agreement with the electricity grid operator Eirgrid to provide the power requirements for the development and operation of the data centre. By doing so, EirGrid has assessed both the electricity network capability and level of

[4] Host In Ireland (May 2021) Ireland's Data Hosting industry 2021 Q1 Update

electricity generation in the area, concluding that there is sufficient electricity available from the grid to meet the demand of the proposed development.

Applicant's Background in Renewable Energy

The Applicant is part of Energia which is a leading developer and operator of renewable energy across the island of Ireland. Energia has a proven track record of developing, constructing and operating a growing renewable energy portfolio on the island of Ireland currently consisting of 15 operational onshore wind farms, which generate over 300MW of green electricity. The operational windfarms include the 95MW Meenadreen Extension windfarm in Donegal which was commissioned in 2017. In addition to these operational windfarms, Energia is also developing further projects in onshore and offshore wind energy, solar technology, hydrogen production, bioenergy production and battery storage.

Energia continues to invest in renewable technologies with a view to doubling its renewable capability over the next five years, driving the transition to a net zero carbon future and helping Ireland meet its climate action targets. Climate action targets have been at the forefront of considerations throughout the process of the proposed data centre development such that over the last 5 years, in parallel with the data centre project, Energia have been developing and investing in a pipeline of new renewable projects that will exceed the energy consumption of the data centre.

Energia has entered into binding legal agreements with the End User to provide Corporate Power Purchase Agreements ('CPPAs') for new renewable energy that will, subject to receipt of a grant of planning, exceed the amount of energy consumed by the data centre from the electricity grid. Energia has granted the End User exclusivity to its renewable development portfolio for the purposes of these agreements. The End User has committed to be carbon neutral on a global basis by 2030.

Renewable Energy Development Portfolio

Energia Group has a portfolio of consented renewable energy projects within the Republic of Ireland totalling 350MW. These include four wind farms with a combined output of 120MW; and five solar parks with a combined output of 230 MW. In total, these projects if constructed will deliver 350 MW of new renewable energy capacity.

The portfolio of consented projects has not yet commenced construction and will not be supported by government incentives such as the Renewable Energy Support Scheme ('RESS'). These renewable development projects require a capital commitment of c.€400m from the Applicant and require a commercial route to market to secure the financing needed to construct them. Without a commercial route to market, such as through a CPPA, these new renewable developments will not be built.

Furthermore, Energia has invested in and are progressing additional new renewable projects on the island of Ireland, including over 200MW of onshore wind farms, 1,800MW of offshore wind farms and over 500MW of solar parks. These projects would produce far in excess of the expected annual volume of energy consumed by the data centre and the End User through the CPPAs will provide the support needed to build out the element of the excess capacity needed and further contribute to Ireland meeting its energy policy targets.

Corporate Power Purchase Agreements

Working alongside the proposed development, Energia and the End User have entered into signed binding legal agreements which set a framework under which new renewable energy generation calculated to offset the energy consumed by the proposed development from the electricity grid can be delivered.

These renewable energy arrangements will:

- Be in the form of individual CPPAs between Energia and the facility End User for each new renewable development project;
- Provide for the establishment of new renewable energy generation projects by the Applicant's group, that will not be supported by government or consumer subsidies that will be:
    - Located in Ireland;
    - Phased over the expected ramp up of the energy demand of the proposed development; and
    - In total, are calculated to exceed the expected annual volume of energy consumed on site by the proposed development;

Summary

Having regard to the above, it is submitted that the proposed application with its objective of operating the proposed development on a net zero carbon basis, has had regard to and is compatible with the emission reduction targets set out under the Climate Action and Low Carbon Development (Amendment) Act 2021 and the Climate Action Plan 2021

To this end, we conclude the information contained in the above response fully addresses An Taisce's concerns relating to the Applicant's obligations in meeting the requirements set out in the Climate Act.

5.1.2 Strengthening of Condition 3

Condition 3 of Fingal's notification of decision to grant permission requires the Applicant to provide details of a Purchase Power Agreement.

"Prior to the commencement of operation of the development hereby permitted, the developer shall submit for the written agreement of the Planning Authority details of a Corporate Purchase Power Agreement that the developer has entered into which demonstrates that the energy consumed by the development on site is offset with new renewable energy generation. The Agreement shall comply with the following: (a) The new renewable energy projects shall not be supported by government, consumer or other public subsidies. (b) The new renewable energy projects shall be located in Ireland. (c) The new renewable energy projects shall be provided by the applicant's group, that is, Huntstown Power Company Limited. (d) The new renewable energy generation shall relate to energy that is not being generated at the date of grant of this permission. REASON: In the interests of sustainable development."

In addition to the above, the Appellant requests the following items are added to Condition 3:

- That the amount of electricity generated by the new renewable energy projects is equal to or greater than the electricity requirements of the data centre; and
- That the new renewable energy projects are fully operational prior to the commencement of operation of the data centre.

Renewable Energy Offset Arrangements

Energia's renewable energy offset arrangements including legally binding agreements are set out in detail at Section 5.1.1.5 above.

Project Programming and Delivery

Each renewable development project is unique in terms of its scale, undertakings and programme. The consented projects will be commenced and constructed in phases over a period of several years to be able to manage resourcing, contracting and financial risk. As such, it would not be practical to

stipulate the timing and delivery of these renewable projects by way a planning condition associated with the proposed development.

As noted in Section 5.1.1.2 above, the proposed development is to be constructed in phases, ramping up its energy consumption over a period of several years. It will therefore not be capable of consuming its maximum energy requirement of 150MW until at least 7 years after the first data hall building commences construction. Therefore, stipulating that all the new renewable developments required to offset the energy consumption of the proposed development should be operational in advance of the commencement of operations, has no regard for the ramp up of energy consumption of the proposed development which will take considerably longer.

Given the project delivery characteristics set out above, Energia and the End User will have to proceed with entering into CPPAs for the most progressed of the renewable development projects in order to ensure available capacity for the commencement of operation of the proposed development. However, entering into CPPAs for the majority of the portfolio envisaged to meet and exceed the expected annual volume of energy consumed on site by the proposed development will only occur, if the proposed data centre development achieves a grant of planning.

It should also be noted that the aforementioned consented renewable projects associated with the CPPAs (totally 350MW), all have a planning expiry within the next 10 years and so are already time limited. Therefore, it can be confirmed the portfolio of consented renewable development projects, if progressed, must be constructed within the planning permission duration associated with the proposed data centre.

Summary

The Power Purchase Agreement – as requested by Condition 3 of Fingal's Decision, is robustly detailed above.

To this end, the above response clearly demonstrates the Applicant's commitment to fulfilling their renewable power obligations as outlined in Condition No. 3 of Fingal's Notification of Decision to Grant Permission - Corporate Power Purchase Agreement.

5.2 BKC Solicitors on behalf of John Conway and Louth Environmental Group

The Applicant received notification of appeal from An Bord Pleanála dated 19 May 2022.

We note from the outset that of the majority of the items raised by the Appellant were raised at the observation stage and were addressed in the planning application and the further information cover letter prepared by Brock McClure Planning and Development Consultants. We submit that the Further Information submitted to Fingal County Council adequately addresses all the points. For clarity, we have set out our responses below:

a) *The planning application does not comply with the requirement of the Planning and Development Act 2000 (as amended) and associated Regulations. The applicant has failed to notify the Commission for Regulation of Utilities – which is so required in circumstances where the proposed development will have an impact on energy infrastructure.*

Applicant's Response

In response to the Appellant's statement, the notification of an application to a prescribed body such as the Commission for Regulation of Utilities is under the remit of the Planning Authority.

The Applicant is not required to contact a prescribed body such as the CRU under the S.34 normal planning application process. It is Fingal County Council's responsibility to notify the CRU as a statutory consultee, if it is deemed necessary. We note that the Council did so on 1 September 2021 and the CRU responded to Fingal County Council's request for submissions on the 6 October 2021, by stating:

"The CRU will not be making a submission for the attached application."

Under existing planning legislation, the provision of a substation and connection to the grid is made under a separate process directly to An Bord Pleanála. This SID application (Ref. 311528) was accompanied by an EIAR and we refer the third party to the Board's website https://www.pleanala.ie/en-ie/case/311528 for details relating to the plans and particulars of the application.

To this end, we conclude the prescribed body in this instance the CRU was notified and responded.

b) *The planning application does not comply with the requirements of the 2001 Regulations (as amended), the EIA Directive or the Habitats Directive in circumstances where there [is] insufficient information and detail presented, including in relation to how the proposed development would operate via linkage/connection to the national grid.*

Applicant's Response

The application including Appropriate Assessment Screening/Natura Impact Statement and Environmental Impact Assessment Report (EIAR) were prepared by a suitably qualified and experienced design team. The information contained in the application is based on best available scientific knowledge.

Under section 182A of the Planning and Development Act 2000 (as amended), substation development and cabling works connecting to the national grid are considered Strategic Infrastructure Development, whereby applications are made directly to the Board. Full details of how the overall development would operate via connection to the national grid are enclosed in the SID application.

We note that the SID application was advertised in a national paper, site notices were erected on site, a website linking all application documents was created and physical copies of the application were made available at the offices of the Board.

The Appellant could at any time within the specified period of 7 weeks commencing 7 October 2022 to 25 November 2022 made a submission of the application to the Board but failed to do so.

Furthermore, the data centre (subject application) was cumulatively assessed with the concurrent application for the substation and associated cabling works to the national grid. An addendum to the EIAR was provided at further information stage to Fingal County Council describing chapter by chapter the full characteristics, impacts and mitigation measures required for the development as a whole, (i.e. Data Centre development & 220kV Substation and associated development.)

Notwithstanding the above, the Appellant's claim is unsubstantiated. No description or detail regarding the alleged "insufficient information" is outlined, to allow the Applicant to adequately respond to the appeal.

To this end, we surmise the claims made are unfounded and the decision of Fingal County Council should be upheld.

c) *The proposed development should be subject to a complete Environmental Impact Assessment in accordance with the provision of national law and the EIA Directive (as amended), having regard to the nature of the project.*

Applicant's Response

An EIAR and EIAR Addendum was submitted to Fingal Council as part of the proposed development. In response to the Appellant's claim, we reiterate that the data centre application was subject to a complete EIA by Fingal County Council. The Chief Executives report notes that "*... the EIAR describes in a clear and appropriately detailed manner the characteristic and impacts of the overall development and sets out the mitigation measures required to avoid and or reduce or remediate adverse environmental impacts*".

The Appellant has not outlined the specific shortfalls that result in the EIAR being an incomplete assessment.

We note that that Fingal County Council deemed the content of the application including EIAR acceptable in deciding to grant permission. Furthermore, the application was externally reviewed, on behalf of Fingal County Council, by Brady Shipman Martin, confirming the level of detailed assessment that was given to the subject application.

On this basis, the decision of Fingal County Council should be upheld.

d) *The Proposed Development does not comply with the requirements of the Planning and Development Act 2000 (as amended) (under Part XAB of the 2000 Act (ss.177r-177AE)) and the Habitats Directive. Due to inadequacies and lacunae in the AA Screening Report and NIS prepared by the Developer the board does not have sufficient and/or adequate information before it to carry out a complete AA Screening and AA in relation to the proposed development.*

Applicant's Response

The Appellant claims there are inadequacies and lacunae in the AA Screening Report and NIS. We wholly disagree with this claim and note the robust assessment provided with the application.

AA Screening Statement prepared by Moore Group submitted with the original application documentation was re-examined and revised for the purposes of the further information response.

A Stage II NIS was then submitted which assessed the predicted impacts arising from the Overall Development including the data centre, substation and associated development.

The Chief Executives Report concludes that *"Based on all available information, including that provided by the applicant and given the nature and scale of the proposed development, as well as the location, conservation objectives and qualifying interests of the European sites, it is concluded that, provided the mitigation measures outlined in the NIS are strictly adhered to, there will be no adverse impacts arising as a result of the proposed development, either alone or in-combination with other plans and projects".*

To this end, we surmise the claims made are unfounded and the decision of Fingal County Council should be upheld.

e) *Inadequate information has been provided in the NIS to screen out the potential impact of the proposed development on birds/bats – reference to generic statements is not a substitute for expert scientific opinion as to the potential impact of the proposed development, during both construction and operational phases on birds, including bird flight lines and collision risks.*

Applicant's Response

In response to the above, we note the Applicant is satisfied that the Appropriate Assessment ('AA') Screening (February, 2022) and Natura Impact Statement ('NIS') (February, 2022) have been prepared by suitably qualified and competent expert. These reports were compiled by Ger O'Donohoe (B.Sc. Applied Aquatic Sciences (GMIT, 1993) & M.Sc. Environmental Sciences (TCD, 1999)) who has 27 years' experience in environmental impact assessment and has completed numerous Appropriate Assessment Screening Reports and Natura Impact Statements on terrestrial and aquatic habitats for various development types. These reports has been compiled in accordance with guidance and legislate requirements as set out in Section 2.1 of the AA Screening Report, and Section 2.1 of the NIS to ensure that the Proposed Development complies fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation.

The AA Screening Report (February, 2022) established that there is an intermittent weak hydraulic link to the Huntstown Stream depending on flow rates, which eventually leads north to the Ward River and to Malahide Estuary SAC (000205) and Malahide Estuary SPA (004025) over 15 river km downstream. There is no connectivity or pathways to any other European sites.

The Appropriate Assessment Screening process found that noted that the habitat type recorded during fieldwork and distance from the coastal SPAs do not present opportunities to support the bird species (predominantly waders) for which the Malahide Estuary SPA (c. 8.67km) is designated. The main concern for wintering birds and their supporting wetland habitats is with regard to water quality and indirect impacts on water quality and prey species which inhabit the sand and mudflats.

The AA Screening Report concludes that "In the absence of construction management, the potential impact on the Malahide Estuary SAC and/or the Malahide Estuary SPA is uncertain. Thus, in line with Departmental Guidance and having regard to ECJ and Irish case law and the 'Precautionary Principle', Stage 2 Appropriate Assessment is required."

The NIS has considered and assessed the predicted impacts arising from the Overall Development and found that with the implementation of appropriate mitigation measures specifically with regard to surface water, during construction, there will be no adverse effects on the integrity of the Malahide Estuary SAC or Malahide Estuary SPA.

The conservation objectives of Malahide Estuary SAC (000205) and Malahide Estuary SPA (004025) have been reviewed, and they are unchanged since the 8 February 2022 issue of the AA Screening Report and NIS.

Furthermore, the project Ecologist Ger O'Donohoe surveyed habitats on the 17 September 2019, 2 December 2020, 17 June 2021 and again on 4 May 2022 by conducting a study area walkover covering the main ecological areas identified. The survey dates are appropriate for surveying flora, birds and non-volant mammals such as for badgers. Birds were surveyed by Moore Group using standard transect methodology and signs were recorded where encountered during the field walkover surveys. Signs of Winter Bird usage were assessed during the December 2020 site visit. Winter bird surveys were not repeated given the site habitats were established as not suitable for migrating Winter species such as geese due the succession of tall herbs on fallow arable farmland. The habitats surveyed again on 4 May 2022 confirmed that there are no changes to the existing habitats on site as presented in Chapter 8 (Biodiversity) of the Environmental Impact Assessment (Addendum) prepared by AWN Consulting et. al. dated February 2022.

Having regard to the duration of time elapsed since the original surveys were prepared, further seasonal surveys have been undertaken by suitable qualified persons for amphibians and bats.

Triturus Environmental Ltd has undertaken targeted amphibian surveys September 2019, with follow-up surveys undertaken in May 2022. The purpose of these site visits was to assess site utilisation (presence/absence) and overall habitat suitability for smooth newt and also common frog. The drainage channels and site lands are unfavourable for amphibians.

Eire Ecology has undertaken bat surveys in August 2019 with follow-up surveys undertaken in June 2022 to examine trees and dwellings on the site for their potential to house bat roosts and the potential impacts to bats by the proposed development. The survey found no evidence of roosting bats. The overall impact on bats is low following mitigation due to the lack of evidence of roosting bats. These further seasonal surveys have confirmed the conclusions within the EIAR Chapter 8 (Biodiversity).

The Applicant is satisfied with the assessment of potential impacts and mitigation measures set out within Chapter 8 (Biodiversity) of the Environmental Impact Assessment (Addendum) prepared by AWN Consulting et. al. dated February 2022 and the Natura Impact Statement prepared by Moore Group – Environmental Services dated 8 February 2022 remain relevant to the Proposed Development.

This response should be read in conjunction with the following:

- Chapter 8 (Biodiversity) of the Environmental Impact Assessment (Addendum) prepared by AWN Consulting et. al. dated February 2022.
- Report for the purposes of Appropriate Assessment Screening prepared by Moore Group – Environmental Services dated 8 February 2022
- Natura Impact Statement prepared by Moore Group – Environmental Services dated 8 February 2022
- Amphibian survey for proposed data centre development on lands adjacent to Huntstown Power Station, North Road, Finglas, Dublin 11 prepared by Triturus Environmental Ltd dated June 2022.
- Bat Survey Report prepared by Eire Ecology dated June 2022.

To this end, we conclude all necessary surveys and assessments were undertaken as part of the application with further clarifications provided as part of this appeal response and the decision of Fingal County Council should be upheld.

f) The AA Screening assessment, included in the NIS does not provide sufficient reasons or findings, as required under Art. 6(3) of the Habitats Directive and national law, to the requisite standard – the conclusions/statements made therein do not identify any clear methodology and no analysis is offered in respect of the AA Screening conclusions in respect of the protected sites "screened out" at the said AA Screening stage.

Applicant's Response

In response to the above statement, we refer the Board to the methodology in Section 1.3 and conclusions in Section 4 in respect of the sites, screened out at the AA Screening Stage.

The NIS concludes that on the basis of the best scientific knowledge available with the implementation of the mitigation and restriction measures set out in Section 3.6 of the NIS relating to Soil Runoff, Soil Removal and Compaction, Fuel and Chemical Handling and Surface Water Runoff, that the possibility of any adverse effects on the integrity of the European Sites considered in the NIS, arising from the Overall Development either alone or in combination with other plans or projects can be excluded beyond reasonable scientific doubt.

The Chief Executives Report concludes that *"Based on all available information, including that provided by the applicant and given the nature and scale of the proposed development, as well as the location, conservation objectives and qualifying interests of the European sites, it is concluded that, provided the mitigation measures outlined in the NIS are strictly adhered to, there will be no adverse impacts arising as a result of the proposed development, either alone or in-combination with other plans and projects".*

To this end, we note that all conclusions were drawn from the best scientific knowledge of the competent experts and clearly set out in the methodology provided in the NIS submitted with the application at further information stage and the decision of Fingal County Council should be upheld.

g) *No regard and/or inadequate regard has been given to the cumulative effects of the proposed development, in combination with other development in the vicinity, on the protected sites.*

Applicant's Response

In response to this statement, we note that this claim is wholly false. The proposal has been cumulatively assessed. A planning search of granted and pending planning applications made within approximately 1km of the subject site primarily focusing on applications made in the last 5 no. years was completed by consulting the Fingal County Council and An Bord Pleanála's online planning tools.

The relevant planning application and outcomes have been listed in Table 3.7 of the EIAR Addendum and Table 2 of the NIS submitted at further information stage. These have been taken into account for the assessment of cumulative impacts with the Overall Development.

Each chapter of the EIAR provides a cumulative impact assessment of the Overall Development with any / all relevant existing or permitted developments as set out in Table 3.7

We note that the following applications have been lodged since the EIAR and addendum were submitted to the Planning Authority. However, these developments should not form part of the cumulative assessment of the proposed development as they have either been refused or are pending a final decision.

FW21A/0250 – Kilshane Energy Ltd were **REFUSED** permission for a Gas Turbine Power Generation Station at Kilshane Road, Kilshane, Finglas, Dublin 11.

FW22A/0068 – Abbey Issuer DAC – **Notification of Decision to Grant 3 June 2022** – Development will consist of 1 no. building for warehouse/ logistics use. We note that a final grant of permission has not been issued at this time.

FW22A/0080 – Pentagon Technologies - **Decision Due 28th June 2022** Proposed change of use from an industrial / warehouse unit, currently under construction to hi-tech industrial unit and amendments to planning application references FW21A/0068 and F17A/0769.

To this end, we note all development in the vicinity of the proposed development was adequately cumulatively assessed as part of the application (including further information response) and the decision of Fingal County Council should be upheld.

h) *There is no information within this application on the proposals to connect the power plant and site to the national grid and the source of gas proposed the Climate Action and Low Carbon Development (Amendment) Act 2021 is not referenced in Section 4.2.3 of the Planning Report.*

Applicant's Response

In response to the above claim, we note from the outset that no gas connection is being proposed as part of the subject application.

In terms of connection to the grid, we refer to the concurrent application made to the Board in relation to the associated substation and cabling works.

We refer the Board to the Cover Letter (submitted at FI), Chapter 9 of the EIAR Addendum of the proposed data centre application and Section 5.1 of this appeal response which describes clearly the proposed development in the context of the Climate Act. In addition the cover letter outlines the relationship of the development with Huntstown Power Station, described further below.

The Proposed Development has been strategically located to adjoin the Huntstown Power Station. Collocating power generation and electricity consumption on the same site is beneficial as it:

- Minimises the need for national grid network improvements, including new high voltage wires and cables, that would otherwise be needed to transfer additional electricity to a new location, the cost of which would be partly paid for by all electricity users; and
- Provides the most energy efficient location for the electricity consumer that minimises electrical losses that occur when transferring electricity longer distances

In addition, this 'co-location' approach will avoid the requirement to build new on-site gas power generation, thus avoiding the potential introduction of additional new fossil fuel generations and associated greenhouse gas emissions, which may be required if the development was sited elsewhere.

To this end, the decision of Fingal County Council should be upheld.

i) *Water usage. Peak demand of water usage stands at around 1,000,000 litres of water per day. Rainwater collection cannot be relied upon, due to uneven patterns of precipitation which will become even more erratic as the climate changes. Cooling the data centre will divert a valuable resource away from the local community, a situation which is likely to get worse as water scarcity becomes more of a problem and population increased. A region with ample water today may become water-stressed in 10 to 30 years. We have recently witnessed that protracted periods of temperatures above 26C with no precipitation are becoming more frequent in Ireland. The UN expects water demand to outpace supply by almost 40% as soon as 2030. Greater consideration needs to be given to how available resources are going to be used. The average data centre uses a lower estimate of 500,000 litres per day. Amazon's large network of data centres in Dublin, stated it could use 296,000 litres of water a day, a facility on Belgard Road cold use 319,680 litres per day and one in Blanchardstown could use 328,000 litres per day.*

Applicant's Response

In response to the above statement, we direct the Board to the cover letter prepared by the Applicant as part of the further information response.

There is an existing 150mm diameter water main located in the R135. Irish Water are proposing updates to the network which will serve the development. The proposed development shall have a requirement for water to cater for the potable demand (for drinking and sanitary facilities) as well as the water demand for the cooling system for the data hall air handling units (AHUs).

Domestic water supply demand for the proposed development has been estimated as 0.17 l/s (average demand) 0.85 l/s (peak demand).

The process water supply demand for the proposed development when temporary evaporative cooling is required has been estimated to have a peak demand of 56 l/s with the site at full load (CSEA, 2021). This estimate excludes periodic flushing and washdown. The peak process water demand will only occur during the extreme warm ambient days and as an estimate based on historical weather data for Dublin, this should be approximately 24 hours per annum. However, this maybe more if re-entrainment of warm air occurs on the site, which could necessitate the requirement for additional evaporative cooling during the extreme warm ambient days.

On-site storage will be provided as part of the development. Water storage (2590m3) will be provided for the evaporative cooling hours required in the worst case summer 48 hour period. The evaporative cooling water will be sourced predominately from the mains supply with a small supplement via rainwater harvesting. The design includes rainwater harvesting system which will be used for flushing toilets etc in the office areas, and for the evaporative cooling system. The design include sprinkler tanks provided to store the firefighting water requirement.

The water fill from the Irish Water main can be adjusted to fill the system over this time period. Process water supply demand for the proposed development has been estimated as 4,842.4 (m3/year).

The design process considered an alternative water-cooled design technology with a significantly higher water demand. The evaporative cooling design has been chosen taking due regard to the potential impacts on water consumption.

The proposed development will be served by a 250mm fire hydrant main which is connected to two proposed sprinkler tanks (Each tank has a capacity of 670m3) and associated pump houses. The fire hydrants will be provided at appropriate locations in accordance with the specialist fire protection contractors design and Fingal County Council requirements.

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 have confirmed through the PCE (Appendix 14.1 of the EIAR) that there is available supply within the network. Irish Water is the National Authority for water management and should there have been an inadequate supply this would have been confirmed to the developer during consultation.

In relation to the concurrent substation development, a potable water supply and fire facility will be provided from the Data Centre private connection. A pre-connection enquiry (PCE) form was submitted to Irish Water which addressed water demand for the concurrent Data Centre development this allowed for sufficient capacity for the proposed development site. The reference number for the Pre-Connection Enquiry is CDS20004468. Irish water responded to this request on 31 March 2021 (Appendix II 14.1 to this Addendum report). The PCE confirmed that the connection to the mains is feasible without infrastructure upgrade works. This is detailed further in the Engineering Planning Report – Drainage and Water Services (Appendix II 14.2 to this Addendum report).

To this end, we conclude the Applicant's response outlined above adequately addresses and overcomes the Appellant's concerns and the decision of Fingal County Council should be upheld.

j) *Ireland is one of the EU's worst carbon emission offenders and faces fines of more than €250 million for missing 2020 targets on reducing greenhouse gas emissions. Missing later targets will trigger steeper fines.*

Applicant's Response

In response to the above, we note the generic nature of the statement as it relates to the proposed development. Notwithstanding the above, we refer to Section 5.1 of this response for more information relating to carbon emissions, in response to An Taisce's appeal.

k) *According to Host in Ireland/Bitpower figures, the data centre industry was responsible for 1.85% of electricity-related carbon emissions in the country during 2020, and this is expected to reach 2.2% by 2025.*

Applicant's Response

In response to the above statement, we refer to Section 5.1 of this response for more information.

l) *An Taisce recommends that information always be sought on the level of energy use required to serve the proposed development, the specific sourcing for the proposed energy use, and the measures proposed to ensure that the project will not create any increase in electricity generation causing greenhouse gas emissions.*

Applicant's Response

In response to the above statement, we refer to Section 5.1 and 5.2 of this response for more information relating to the Applicant's response to An Taisce's appeal.

m) *There are now 70 operational data centres in Ireland using 900 megawatts (MW), with eight under construction with 250MW usage and 26 with planning approval and are expected to double by 2025. In the last year alone, there has been a 25% growth in these centres. Within nine years these centres will consume 30% of the state's total electricity demand.*

Applicant's Response

In response to the above statement, it has been confirmed by EirGrid through the transmission connection agreement received by the Applicant that there is sufficient power available from the existing area network to facilitate the proposed 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.

Over the last year, EirGrid in conjunction with the Electricity Regulator (CRU) ceased issuing new connection agreement offers to the data centre industry while a consultation process on the security of Ireland's electricity supply to existing customers was completed. The result of this process was that a new data centre connection policy was implemented by EirGrid, which has resulted in a moratorium preventing new data centres that have not yet signed a connection agreement being connected to the grid for the foreseeable future. Without a grid connection these data centres will not be built. As such:

- the projected electricity demand growth from data centres in Ireland in the period to 2030 will be substantially lower than the 30% estimate made prior to the moratorium; and
- Subject to receipt of a grant of planning, the proposed development will be one of only a few data centres that will be built in the Republic of Ireland over the coming years.

We refer to Section 5.1 of this response for more information.

n) This development would be in breach of the Climate Action Plan 2021.

Applicant's Response

In response to the above statement, we refer to Section 5.1 of this appeal response for more information relating to compliance with the Climate Action Plan 2021.

7 Conclusion

We invite the Board to consider the appeal response having regard to Fingal's positive decision and grant permission for the development, subject to condition, as necessary.

8 Enclosures

The following are included as part of this appeal response:

- 2 no. copies of this appeal response prepared by Brock McClure Planning and Development Consultants;
- 2 no. copies of the updated bat survey and associated report prepared by Eire Ecology; and
- 2 no. copies of the updated amphibian survey and associated report prepared by Triturus.

Appendix A - Notification of Decision to Grant Permission Ref. FW21A/0151

Condition Number	Description	Applicant Comment
1	The development shall be carried out in its entirety in accordance with the plans, particulars, specifications, and information lodged with the application on 24/08/2021 and as amended on 11/02/2022, save as may be required by the other conditions attached hereto. REASON: To ensure that the development shall be in accordance with the permission, and that effective control be maintained.	The Applicant will fully comply with this condition.
2	The permitted use of the development shall be strictly as indicated on the submitted plans, drawings and documentation (data hall). The offices shall remain ancillary to the data hall use permitted. Any change of use, subdivision or amalgamation, whether or not such change or subdivision would otherwise constitute exempted development, under the Planning and Development Regulations 2001(as amended) shall not be undertaken without a prior grant of permission. REASON: To avoid any misunderstanding as to the proper construction of this permission and to regulate the use of the development and to ensure proper planning control is maintained.	The Applicant will fully comply with this condition.
3	Prior to the commencement of operation of the development hereby permitted, the developer shall submit for the written agreement of the Planning Authority details of a Corporate Purchase Power Agreement that the developer has entered into which demonstrates that the energy consumed by the development on site is offset with new renewable energy generation. The Agreement shall comply with the following: (a) The new renewable energy projects shall not be supported by government, consumer or other public subsidies. (b) The new renewable energy projects shall be located in Ireland. (c) The new renewable energy projects shall be provided by the applicant's group, that is, Huntstown Power Company Limited. (d) The new renewable energy generation shall relate to energy that is not being generated at the date of grant of this permission. REASON: In the interests of sustainable development.	The Applicant will fully comply with this condition. The Applicants response to An Taisce's proposal to strengthen this condition is set out in Section 5.1 above.
4	The duration of this permission shall be for a period of ten years. REASON: In the interests of clarity.	Noted
5	(a) All mitigation measures identified in the Natura Impact Statement and the Environmental Impact Assessment Report (including the addendum to the Environmental Impact Assessment Report) shall be implemented in full in the construction and operation of the development. (b) A Mitigation Implementation Schedule shall be prepared and submitted by the developer prior to commencement of development for the written agreement of the Planning Authority. The schedule shall contain a numbered list of all the construction and operation-related mitigation measures to be implemented, the company / person(s) responsible for implementation of each measure and the timing / duration of each mitigation measure. The schedule shall include the measures set out in the Environmental Impact Assessment Report (and Addendum to the Environmental Impact Assessment Report), the Natura Impact Statement, and other documentation as required. The Mitigation Implementation Schedule shall be supported as appropriate, by mapping outlining the location of the mitigation measures. REASON: In order to ensure protection of the local environment.	The Applicant will fully comply with this condition.
6	Prior to commencement of development, final Construction Environmental Management and Construction Noise and Vibration Management Plans shall be submitted for the written agreement of the Planning Authority. This shall	The Applicant will fully comply with this condition.

	include all applicable mitigation measures identified in the Mitigation Implementation Schedule (using the nomenclature of that Schedule) and all other applicable items referred to in other conditions. The Plan shall include the provision of Class 1 Full Retention petrol /oil interceptors (or their equivalent) and shall be supported, as appropriate, by mapping outlining the location of the mitigation measures. REASON: In order to ensure protection of the local environment and the amenities of the area.	
7	The following requirements of the Planning Authority shall be complied with in full: a) A 2.0 footpath and a 2m cycle segregated path along the boundary of the existing site and the North Road shall be provided and designed in accordance with the NTA Cycle Manual. The design and construction details including ducting, drainage and lighting/replacement hedgerow shall be agreed in writing with the Planning Authority prior to commencement of development. b) Internal crossing points for pedestrians shall be raised or ramped so the pedestrians and cyclists retain priority through the site. c) A Detailed Construction Management Plan shall be prepared by the main contractor including a detailed Construction Traffic Management Plan which would address in detail haulage routes, interpeak deliveries schedules and the off-site car parking and proposed construction staff transport facilities. Proposed traffic management on the public road shall be agreed with the Traffic Section, Operations Department of Fingal County Council through the Road Opening licensing system. d) Road Safety Audits shall be carried out as part of the proposed development at the relevant stages as outlined in current edition of Transportation Infrastructure Ireland guidelines GE-STY-1027. e) A minimum of 10% of EV charging points shall be available from completion of the proposed development with all ducting and services provided as part of the proposed development to facilitate non-disruptive retro fitting of EV charging points for all of the remaining parking spaces. f) A final Mobility Management Plan shall be submitted within one year following occupation of the development for the written agreement of the Planning Authority. The measures identified in the Mobility Management Plan shall be implemented for the development and expanded to include monitoring and surveys and tax saver schemes, the appointed mobility management coordinator shall be responsible for implementing the measures once the development is occupied g) The applicant shall comply with any future requirement of the Planning Authority in relation to additional mitigation works in relation to glint and glare issues that may arise but may only become apparent when the installation is commissioned. h) No objects, structures or landscaping shall be placed or installed within the visibility triangle exceeding a height of 900mm; which would interfere or obstruct (or could obstruct over time) the required visibility envelopes. i) All underground or overhead services and poles shall be relocated, as may be necessary, to a suitable location adjacent to the new boundary at the developer's expense. j) All works to the public road shall be in accordance with the Fingal County Council's taking in-charge standards and carried out at the expense of the developer. REASON: In the interest of traffic safety.	The Applicant will fully comply with this condition.
8	The following requirements of the Planning Authority shall be complied with in full: a) No surface water / rainwater is to discharge into the foul water system under any circumstances. b) The surface water drainage must be in compliance with the 'Greater Dublin Regional Code of Practice for Drainage Works, Version 6.0, FCC, April 2006. REASON: In the interests of the proper planning and sustainable development of the area.	The Applicant will fully comply with this condition.
9	(a) Prior to the commencement of development, details of the materials, colours and textures of all external finishes including samples, shall be submitted to and agreed in writing by the Planning Authority. Sample panels shall be erected on the site at the time of submission of the details. (b) Noise insulation shall be provided in the administrative and staff welfare areas as detailed in the noise impact assessment technical report by AWN Consulting on 11th February 2022. REASON: In the interests of orderly development and the visual amenities of the area.	The Applicant will fully comply with this condition.

10	The following requirements of the Planning Authority shall be complied with in full: a) Landscape Plan: The submitted landscape plan shall be implemented no later than the first planting season following completion of site construction works. b) Landscape and maintenance specifications: A site-specific specification shall be submitted for the written agreement of the Planning Authority in relation to the proposed meadows, i.e. seed mix, treatment of soil and maintenance regime. A site-specific maintenance specification shall be submitted for the written agreement of the Planning Authority in relation to the proposed woodland planting (in terms of short, medium and long term works - thinning requirements etc.) as well as for the existing hedgerow planting (e.g. coppicing etc.) c) Tree and Hedgerows: To ensure the protection of trees to be retained within the site, the developer shall implement all the recommendations pertaining to tree retention as outlined within the submitted tree report. The appointed arboricultural consultant shall be engaged by the applicant for the duration of the project, to liaise with works contractor & Fingal County Council's Parks Planning Officer and monitor and record (photograph and report site inspection dates) all tree protection measures. A tree bond of €65,000 shall be lodged with the Council prior to the commencement of development in order to ensure that the trees and hedgerows are protected and maintained in good condition throughout the course of development. This bond will be held by Fingal County Council for a period of three years post construction which may be extended in the event of possible construction related defects. The arborist's records (of site inspection dates and photographs) to be submitted to the Council prior to the request for release of this Tree Bond. All works on trees shall follow proper arboricultural techniques conforming to BS3998: 2010 Tree Works - Recommendations. REASON: To ensure the provision of amenity afforded by appropriate landscape design.	The Applicant will fully comply with this condition.
11	Any removal of vegetation, including trees and hedges from the development site shall only be carried out in the month from September to February inclusive, i.e outside the main bird nesting season. REASON: To prevent the destruction of the nests , eggs and young of bird breeding on the development site.	The Applicant will fully comply with this condition.
12	Prior to commencement of the development, the applicant/developer shall submit details for the written agreement of the Planning Authority, of the various waste streams, including expected tonnages, which will be generated during site clearance/demolition and construction phases. The applicant/developer shall also confirm any proposed exportation/importation of soil and stone material including destination/source locations, quantities and if any material will be assessed under Article 27. REASON: In the interest of public health.	The Applicant will fully comply with this condition.
13	The following requirements shall be complied with in respect of archaeology: a) The applicant shall engage the services of a suitably qualified, experienced and licence eligible archaeologist to co-ordinate the mitigation proposals contained in the EIAR for archaeological excavations (preservation by record) and archaeological monitoring of ground works. The archaeologist will provide a schedule of archaeological excavation works that will take place in advance of the commencement of any construction works. The schedule of the archaeological works (incorporating the results of ongoing excavations under Licence No. 21E0185) will be included in the Method Statement submitted with the Archaeological Licence application. b) The archaeologist will excavate and 'preserve by record' features identified in the testing phase and will be prepared to monitor under licence all other ground works associate with the development. The archaeologist will also make arrangements for the protection of archaeological features within the development site during the course of construction works. c) Should archaeological material be found during the course of monitoring, the archaeologist may have work on the site stopped, pending a decision as to how best to deal with the archaeology. The developer shall be prepared to be advised by the Department of Housing, Local Government and Heritage with regard to any necessary mitigating action (e.g. preservation in situ, or excavation) and should facilitate the archaeologist in recording any material found. d) The Planning Authority and the Department of	The Applicant will fully comply with this condition.

	Housing, Local Government and Heritage shall be furnished with a report describing the results of the monitoring. REASON: To ensure the continued preservation (either in situ or by record) of places, caves, sites, feature or other objects of archaeological interest.	
14	No additional development shall take place above roof parapet level, including air handling equipment, storage tanks, ducts or other external plant, telecommunication aerials, antennas or equipment, unless authorised by a further grant of planning permission. REASON: To protect the visual amenities of the area.	The Applicant will fully comply with this condition.
15	A strategy in relation to the use of cranes during construction shall be agreed in writing with the Irish Aviation Authority (IAA) and the Dublin Airport Authority (DAA) prior to the commencement of any development on site. REASON: In the interest of aviation safety.	The Applicant will fully comply with this condition.
16	The following requirements shall be complied with in full as follows: a). During the demolition and construction phase no heavy construction equipment/machinery (to include pneumatic drills, construction vehicles, generators, etc) shall be operated on or adjacent to the construction site before 8.00a.m. or after 7.00p.m., Monday to Friday, and before 8.00 a.m. and after 1.00p.m. on Saturdays. No activities shall take place in site on Sundays or Bank Holidays. No activity, which would reasonably be expected to cause annoyance to residents in the vicinity, shall take place on site between the hours of 7.00p.m. and 8.00a.m. No deliveries of materials, plant or machinery shall take place before 8.00a.m. in the morning or after 7.00p.m. in the evening. If there is any occasion when work must be carried on outside daytime hours, the Environmental Health Unit, Fingal County Council, local residents and businesses in areas which are likely to be affected by noise from the proposed works should be notified in advance e.g. in letter or leaflet or advertisement form, of: • Name, address and telephone number of the company carrying out works • Nature of and reason for works • Likely duration and times of work b) All construction work carried out on site shall have regard to B.S.5228: 2009+A1:2014 'Noise and Vibration control on construction and open sites to minimize noise from construction operations. c) All noisy equipment shall be fitted with effective silencers and/ or sealed acoustic covers. Should noise levels exceed the threshold level, steps shall be taken by the contractor to review the works and implement additional mitigation measures. Noise attenuation measures such as shrouding and/or the use of acoustic enclosures shall be used for noisy construction activities as outlined in chapter 10 of the Environmental Impact Assessment Report. d) During the demolition and construction phase all necessary steps shall be taken to contain dust and airborne pollutants arising from the site and to prevent nuisance to persons in the locality. This shall include i) covering skips, ii) covering slack heaps, iii) netting of scaffolding, iv) regular road and pavement damping and sweeping, v) use of water spray to suppress dust, vi) proper paved or hard stand access for trucks and vehicles to and from the site to prevent dirt and dust from the site being carried from the site on to public roads etc. e) The generation of airborne dust shall be kept to a minimum. During dry periods, dust emissions from heavily trafficked locations on/off site shall be controlled by the spraying of surfaces with water and wetting agents. Windblown dust emissions on site surfaces shall be sprayed by a mobile tanker bowser. Dust barriers shall be provided at dust sensitive locations i.e. adjacent to residential/commercial properties where large volumes of dust are likely. f) Diesel generators shall only be used in the case of an emergency and routine testing and shall ensure safe air dispersal. g) Generator testing shall be carried out during daytime periods (i.e. between 08:00 to 19:00hrs Monday to Friday and shall not exceed a free field level of 55dB LAeq,1hr at nearby residential noise sensitive locations. No more than one generator shall be tested at a time. h) The noise contribution from the development once operational shall not exceed the background level by 10dB(A) or more or exceed the limits below whichever is lesser. Daytime (07:00 to 19:00 hrs) - 55dB LAr, 15mins Evening (19:00 to 23:00 hrs) - 50dB LAr, 15mins Night-time (23:00 to 07:00 hrs) - 45dB LAeq, 15mins As measured 1 metre from the facade of the nearest noise sensitive location/s. Clearly audible and impulsive tones at noise sensitive locations during evening and night shall be avoided irrespective of the noise level. i) Noise and	The Applicant will fully comply with this condition.

	vibration monitoring shall be carried out by a competent person for the duration of the demolition and construction phase and for 1 month after the development is fully operational, copies of which shall be made available to the Planning Authority if requested. REASON: in the interest of proper planning and the protection of amenities in the area.	
17	No advertising, signage or other publicity material, including that which is exempted development under the Planning and Development Regulations 2001, as amended, shall be posted on the structures permitted in this application. Save for that which is exempted development under the Planning and Development Regulations 2001 (as amended), no advertising, signage or other publicity material shall be posted within the curtilage of the subject site without the prior receipt of planning permission by the Planning Authority, or from An Bord Pleanála. REASON: In the interests of visual amenity and the proper planning and sustainable development of the area.	The Applicant will fully comply with this condition.
18	The developer shall provide a piece of public art or sculpture or architectural feature, to be designed in consultation with the Council (please contact Public Art Coordinator, within the Community Culture & Sports Division of Fingal County Council). The piece of art shall have a relationship with the area. The location of the piece of art shall be agreed with the Parks and Green Infrastructure Division prior to the commencement of works on site. REASON: To comply with Objective DMS05 of the Fingal Development Plan 2017-2023.	The Applicant will fully comply with this condition.
19	All services to the development, including electrical, telephone cables and associated equipment shall be located underground throughout the entire site. REASON: In the interest of amenity.	The Applicant will fully comply with this condition.
20	The developer shall comply in full with the following: a) All necessary measures shall be taken by the applicant/developer to prevent the spillage or deposit of any materials including clay rubble or other debris on adjoining roads during the course of development. In the event of any such spillage or deposit, immediate steps shall be taken to remove the material from the road surface at the applicant/developers own expense. b) The applicant/developer shall be responsible for the full cost of repair in respect of any damage caused to the adjoining public road arising from the construction work and shall either make good any damage to the satisfaction of Fingal County Council or pay the Council the cost of making good any such damage upon issue of such a requirement by the Council. REASON: To protect the amenities of the area.	The Applicant will fully comply with this condition.
21	The applicant shall sign a connection agreement with Irish Water, prior to the commencement of the development and adhere to the standards and conditions set out in that agreement. All development shall be carried out in compliance with Irish Water Standards codes and practices. REASON: To ensure proper planning & sustainable development.	The Applicant will fully comply with this condition.
22	A special contribution under section 48 (2) (c) of the Planning and Development Act 2000 of €39,372.30 shall be paid to Fingal County Council in respect of the upgrading of the junction of the R135/North Road with the northbound slip road from the N2.	The Applicant will fully comply with this condition.
23	Prior to Commencement of development the developer shall pay the sum of €6,510,742 (updated at date of commencement of development, in accordance with changes in the Tender Price Index) to the Planning Authority as a contribution towards expenditure that was and/or that is proposed to be incurred by the planning authority in respect of public infrastructure and facilities benefiting development in the area of the Authority, as provided for in the Contribution Scheme for Fingal County made by the Council. The phasing of payments shall be agreed in writing	The Applicant will fully comply with this condition.

	with the planning authority prior to the commencement of development. REASON: It is considered reasonable that the payment of a contribution be required in respect of the public infrastructure and facilities benefiting development in the area of the Planning Authority and which is provided, or which is intended to be provided by, or on behalf of the Local Authority. Note on above Condition: Please note that with effect from 1st January 2014, Irish Water are now the Statutory Body responsible for both water and waste water services (excluding surface water). Accordingly, the contribution payable has been reduced by the amount of the contribution associated with these services. A separate charge will be levied by Irish Water in relation to the provision of water and/or wastewater treatment infrastructure and connections to same. Further details are available on the Irish Water website www.water.ie, Tel. (01) 6021000. NOTE 1: The applicant is advised that under the provisions of Section 34(13) of the Planning and Development Act 2000, as amended, a person shall not be entitled solely by reason of a permission to carry out any development. NOTE 2: The applicant is advised that the onus is on them to comply in full with the Building Control Regulations.	

Table 2 - Notification of Decision to Grant Permission Ref. FW21A/0151 Conditions and Applicant Comment

Eire Ecology

Environmental Consultants

Bat Survey Report

Proposed Data-Centre Development

Eire Ecology

DOCUMENT DETAILS

Client:	Energia
Project Title:	Proposed Datacentre Development on lands adjacent to Huntstown Power Station
Address:	North Road, Finglas, Dublin 11.
Document Title:	Bat Survey Report
Prepared By:	John Curtin – Consultant Ecologist
Date:	June 2022

Eire Ecology, Moyglass, Loughrea, Co. Galway

Tel +353 (085) 1179428 www.EireEcology.ie

TABLE OF CONTENTS

1 INTRODUCTION

This report updates previous details the finding of a bat survey completed to accompany the planning application for two no. data hall buildings arranged over 3 storeys and associated structures and infrastructure include including water treatment facility, sprinkler tanks, diesel generators and diesel fuel storage, associated plant, vehicular access roads, car and bicycle parking, attenuation ponds and sustainable urban drainage measures, underground foul and storm water drainage network associated landscaping and boundary treatment works.

The Proposed Development site is c. 12.9 hectares of greenfield land including two residential properties fronting the R135 and located to the north west of the M50 orbital ring in the townland of Johnstown and Coldwinders, North Road, Finglas, Dublin 11. The surrounding area is characterised by a variety of energy, industrial, commercial, quarrying, agricultural and residential uses. The subject site is generally bounded to the north by the Dogs Trust (Dog Rescue and Rehoming Charity), to the south by a vehicular entrance leading to the Huntstown Quarry and further south west by an Anaerobic Digestion Plant, to the east by the North Road (R135) and to the west by Huntstown Power Station.

Surveys were originally conducted in August 2019 and resurveyed in May 2022. This report aims to;

- Examine trees and buildings on site for their potential to host bat roosts
- Identify species of bats using the site.
- Examine potential feeding and commuting routes.
- Potential impacts of bats by the proposed development.

The surveys undertaken are in line with recommendations in Chapter 10 of the Bat Conservation Trust 'Good Practice Guidelines, 3rd edition (BCT Guidelines 2016) and The Irish Wildlife Manual No. 25' (Kelleher, C. Marnell, F. & E. Mullen 2022). In addition, the recent guidelines on the use of thermal imaging as a replacement for the necessity for dawn surveys was also followed; Fawcett Williams (2021) Thermal Imaging: Bat Survey Guidelines. The

survey was designed and carried out by John Curtin B.Sc. (Ent.). John has over ten years' experience of carrying out bat surveys and has completed numerous surveys during this time. John has also completed the Bat Conservation Ireland, Bat Detector Workshop and Bat Handling Workshop which are the standard training for the carrying out of bat surveys in Ireland. He follows the Bat Conservation Ireland 'Good Practice Guidelines '(Aughney *et al.*, 2008)'. In addition, John is an active member of Bat Conservation Ireland, which monitor bat populations in Ireland, and facilitate the education of bat communities to the public. In addition, the dusk survey was also carried out by Karolina Illien. Karolina is currently a Masters student of NUIG (Environmental Leadership). Finally, the at height survey work was conducted with Rik Pannett. Rik is an arboreal consultant having qualified from City and Guilds (Easton College of Agriculture, Norwich) in 1991. Rik has worked full-time as a self-employed arborist since this time.

Rik follows the Industry Code of Practice for Arboriculture Tree Work at Height (UK) 2015 and Safe use of lifting equipment (Northern Ireland) 1998; regulation 9; thorough examination and inspection. John and Rik have conducted at-heigh tree surveys as a team on multiple occasions since 2019 including the translocation of tree roosts in 2021.

The site in question refers to arable crop fields bordered by mature treelines and hedgerows.

In order to assess the presence and activity of bats within the proposed development grounds, several surveys were conducted within the site. (See **Table 1-1**).

Table 1-1: Surveys completed in 2022

Date	Survey type
30th May 2022	At height prf tree survey. Conducted by John Curtin & Rik Pannett
30th May 2022	Daylight search of buildings. Conducted by John Curtin
30th May 2022	Dusk survey with two surveyors. Conducted by John Curtin & Karolina Illien.
30th May to the 08th of June	Static detector survey.

A thorough at height examination of the trees using high powered torch, and a Ridgid CA-300 Inspection Camera did not reveal the presence of roosting bats. Daylight and night-time

surveys of the two buildings also showed no evidence of roosting bats. Static monitoring showed bats use the site for feeding purposes. Rarer woodland bats such as Myotis species and Brown Long-eared bats were not recorded utilising the site.

2 DESKTOP STUDY

2.1 BATS IN IRELAND – LEGISLATIVE PROTECTION

There are two main pieces of legislation which cover wildlife protection in Ireland – the Wildlife Act and the Habitats Regulations. These are outlined below, with particular reference to the protection afforded to bat species in Ireland.

The Wildlife Acts 1976 and 2000

The primary pieces of national legislation for the protection of wildlife in Ireland are the Wildlife Act (1976) and the Wildlife [Amendment] Act (2000). All species of bats in Ireland are listed on Schedule 5 of the 1976 Act, and are therefore subject to the provisions of Section 23, which make it an offence to:

- Intentionally kill, injure or take a bat
- Possess or control any live or dead specimen or anything derived from a bat
- Wilfully interfere with any structure or place used for breeding or resting by a bat
- Wilfully interfere with a bat while it is occupying a structure or place which it uses for that purpose

The Habitats Regulations 1997-2005

The EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive 1992) seeks to protect rare and vulnerable species and the habitats in which they are commonly found, and requires that appropriate monitoring of populations be undertaken. All bat species found in Ireland are listed under Annex IV of the Directive, while the lesser horseshoe bat is afforded further protection under Annex II. The Habitats Directive has been transposed into Irish law by the European Communities (Natural Habitats) Regulations 1997. All bat species are listed on the First Schedule and Section 23 of the regulations makes it an offence to:

- Deliberately capture or kill a bat
- Deliberately disturb a bat
- Damage or destroy a breeding site or resting place of a bat

Provision is made in the Regulations for the Environment Minister to grant, in strictly specified circumstances set out in that Regulation, a derogation license permitting any of the above activities "where there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species to which the Habitats Directive relates at a favourable conservation status in their natural range".

2.2 SITE LOCATION

The proposed site lies approximately 50m east of the Huntstown power station whilst the R135 borders the site to the East (Grid Ref. E711657/ N741391). The site for the proposed development lies approximately 3.8km from the Royal Canal proposed National Heritage Area (site code: 002103) (see **Figure 2-1** below).

Figure 2-1: Location of proposed development in relation to designated site

Figure 2-2: Aerial of site

2.3 Bat Species Recorded in the Surrounding Area

The NBDC database was consulted for details on bat records held for the site and the surroundings. In addition, the Bat Conservation Ireland database was examined for roost records within 5km of the site. The databases were consulted on the 09/06/2022 for details on historical records from the site, the surrounding 2km (O14A) and the 10km hectad; O14. Results are outlined in **Table 2-1**. While no bat records were found with the 2km square O14A six of the nine confirmed resident bat species known to occur in Ireland have been recorded within the 10km hectad O14 the subject site resides in. A search for bat roosts found 6 historical roosts within 5km of the site, the closest located some 3km to the southwest where 28 Leisler's bats were recorded entering a roost building in 2008. A Leisler's bats, Common and Soprano Pipistrelle roost can be found some 3.6km to the west while a Soprano Pipistrelle roost can be found 4.2km to the west. A tree roost was recoded 4.6km to the east where an unidentified Pipistrelle was recorded from a tree roost.

Table 2-1: Irish bat species recorded surrounding the subject site

Roost Search	Latin Name	Common name	Date of last record	Details
Building Roost	*Nyctalus leisleri*	Leisler's Bat	2008	3km SW. 25 bats observed.
Building Roost	Pipistrellus pygmaeus, *Pipistrellus pipistrellus*, *Nyctalus leisleri*	Soprano Pipistrelle, Common Pipistrelle, Leisler's Bat	2010	3.6km West. Observed in attic. No details on numbers.
Building Roost	Pipistrellus pygmaeus	Soprano Pipistrelle	1999	4.2km to west. 50+ bats.
Building Roost	Pipistrellus spp		1998	4.3km north west. No details on numbers
Tree Roost	Unidentified bat		2000	4.6km East
Building Roost	*Plecotus auritus*	Brown Long-eared Bat	1998	4.9km South west. Droppings found
Transect	*Pipistrellus pipistrellus sensu lato*	Pipistrelle	2002	2.8km to the NE recorded during EIA survey
	Pipistrellus pygmaeus	Soprano Pipistrelle		
	Plecotus auritus	Brown Long-eared Bat		
	Myotis daubentonii	Daubenton's Bat	2008	3.23km to the S
	Pipistrellus nathusii	Nathusius's Pipistrelle	2007	4.97km to the SW along the Royal Canal
	Myotis nattereri	Natterer's Bat	2006	3.65km to the SW on the Tolka River
	Pipistrellus pipistrellus sensu lato	Pipistrelle	2005	1.5km to the S recorded during EIA survey
	Nyctalus leisleri	Leisler's Bat		

3 SURVEY FINDINGS

3.1 SURVEY METHODOLOGY

A detailed inspection of the trees was undertaken during daylight hours on the 30th of May 2022. The aim was to compile information on actual and potential access points and roosting locations. This was done by searching for evidence of bats including live and dead specimens, droppings, feeding remains, urine splashes, fur oil staining and noises.

3.2 SURVEY CONSTRAINTS

Surveys were conducted during May 2022 within the bat active season (May - August).

3.2.1 Habitats on site

The boundary hedgerows and treelines consists of mature and semi mature ash, hawthorn, sycamore. The surrounding lands are well represented with treelines, hedgerows as well as industrial developments. The Huntstown Power station located to the east provides considerable light pollution.

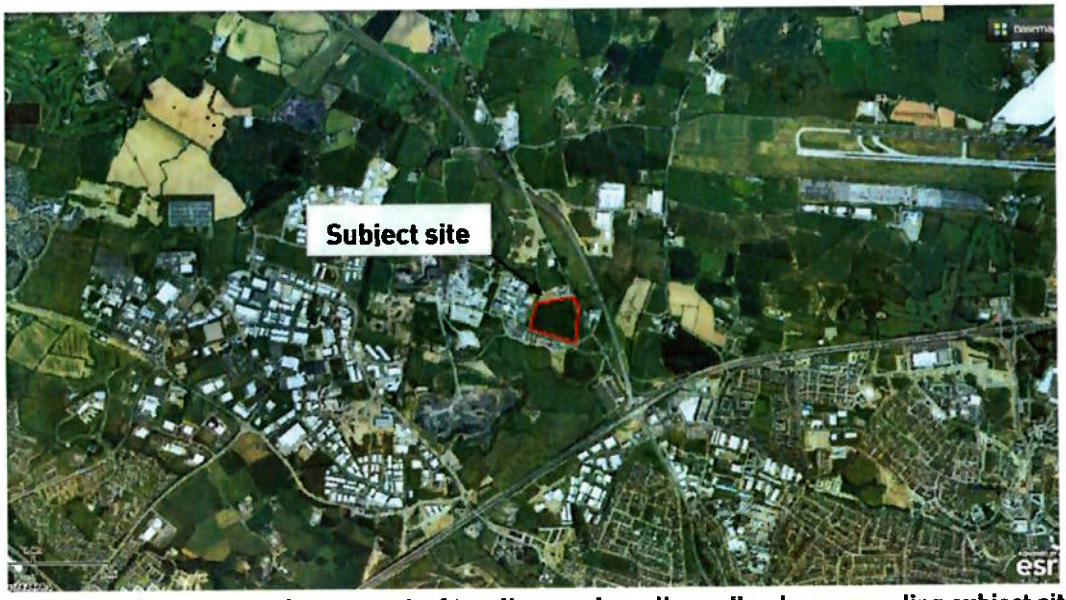

Figure 3-1: Aerial displaying network of treelines and small woodlands surrounding subject site

3.2.2 Daylight inspection

Trees

Several mature and semi-mature trees were found within the site. Given the potential for trees to host bat roosts a full 'at height' potential roost feature (prf) survey was completed on the trees within the site.

A daytime visual assessment of trees within the proposed development site was undertaken on the 30th of May 2022 following adapted guidelines from the following sources;

- Andrews H. (2018) *"Bat Roosts in Trees – A Guide to Identification and Assessment for Tree-Care and Ecology Professionals" - Bat Tree Habitat Key.* Pelagic Publishing
- Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London
- Andrews H. *Surveying Trees for Bat Roosts: Encounter Probability v. Survey Effort* 2015
- Andrews H et al. 2013. *Bat Tree Habitat Key.* AEcol, Bridgwater
- Hundt L. (2012) *Bat Surveys: Good Practice Guidelines*, 2nd edition, Bat Conservation Trust, London
- Kelleher, C. & Marnell, F. (2006) *Bat Mitigation Guidelines for Ireland.* Irish Wildlife Manuals, No. 25. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.
- National Roads Authority (2005), *Guidelines for the Treatments of Bats Prior to the Construction of National Road Schemes.*

Conditions were dry and sunny. All trees were assessed from ground level using binoculars and by use of telescopic ladders up to 5m in height. Where trees showed some roosting potential a full prf survey was conducted with an arborist climbing the tree. The arborist then conducted full searches of each potential prf feature.

Evidence of bat usage sought during the surveys include:

- Bat droppings (these will accumulate under an established roost or under access points);
- Insect remains (under feeding perches);
- Oil (from fur) and urine stains;
- Scratch marks; and

- Bat corpses.

Examples of crevice features include:

- Natural holes;
- Cracks/splits in major limbs;
- Loose bark; and
- Hollows/cavities.

Table 3-1 Category description

Tree Category	Description
1	Trees with multiple, highly suitable features capable of supporting larger roosts
2	Trees with definite bat potential but supporting features suitable for use by singleton bats;
3	Trees have no obvious potential although the tree is of a size and age that elevated surveys may result in cracks or crevices being found or the tree supports some features which may have limited potential to support bats;
4	Trees have no potential.

This follow-up survey did not take as long as the 2019 survey given the familiarity with the site and the fact several of the larger trees have fallen.

During the 2019 survey two trees were ranked category 2; Trees with definite bat potential but supporting features suitable for use by singleton bats. The 2022 survey revealed one of these trees had fallen over while the other tree (Plate 3-1) had a layer of ivy covering where the previous cavity was recorded. A section of ivy was removed in order to find the cavity however once removed the cavity was found to have closed (Plate 3-2).

None of the other trees marked during the 2019 survey showed any potential for bat roosts. An elder however, previously covered in scrub showed a high potential cavity. This cavity was thoroughly searched yet showed no evidence of bats or previous occupancy. In total, this one elder was the only tree within the site to have a category of 1. All others are ranked category 3 or 4.

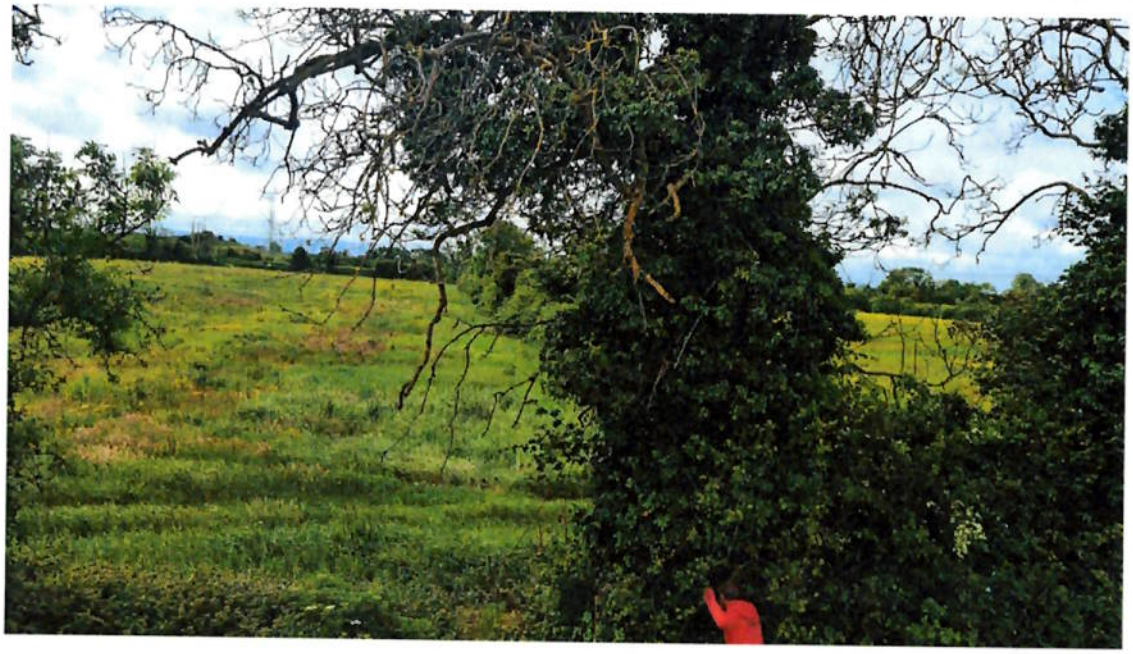

Plate 3-1: Ash with highest potential prf during 2019 survey

Plate 3-2: Section of trunk where cavity was (red circle).

Plate 3-3: Treeline by western end of site

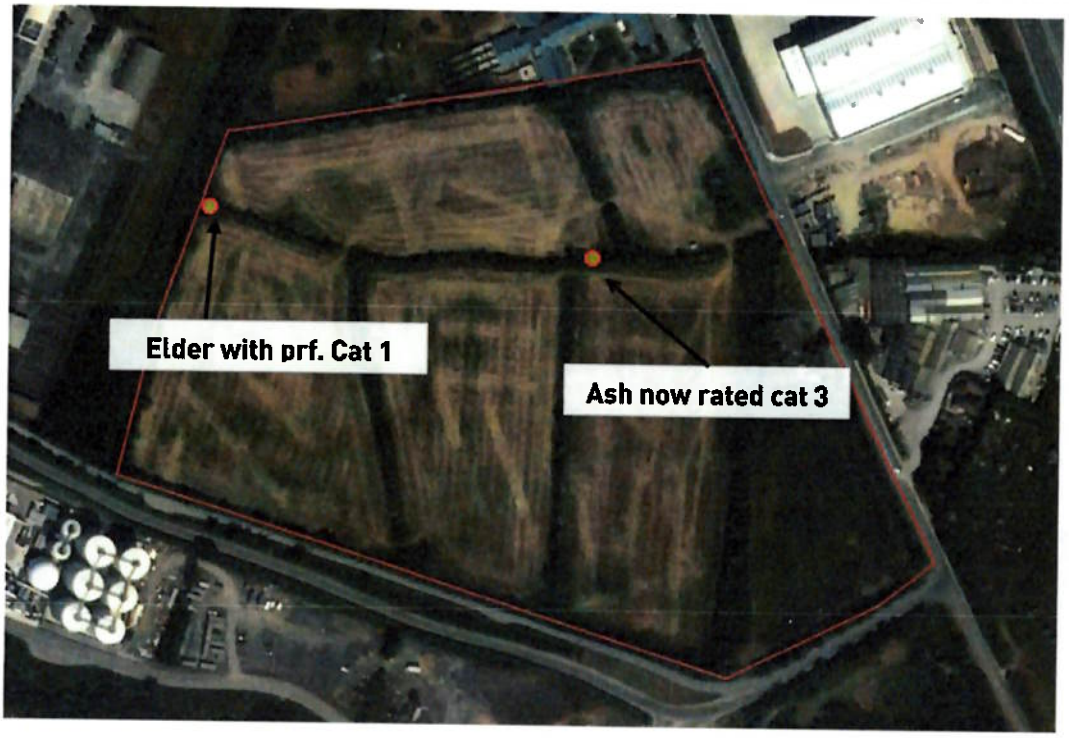

Figure 3-2: Concluding category of trees surveyed within the site.

Buildings

Two building are located within the subject site, one occupied.

Building one consists of a block built bungalow with tiled roof. Plastic fascia and soffit showed minimal gaps by wall plate thus reducing access points for bats considerably. The dwelling was searched internally. No signs of bat occupancy were found in the dwelling. The attic was also searched. A layer of bitumen felt membrane was found under the tiles (Plate 3-6). No bat dropping or other signs of previous bat occupancy were noted.

Plate 3-4: Unoccupied dwelling

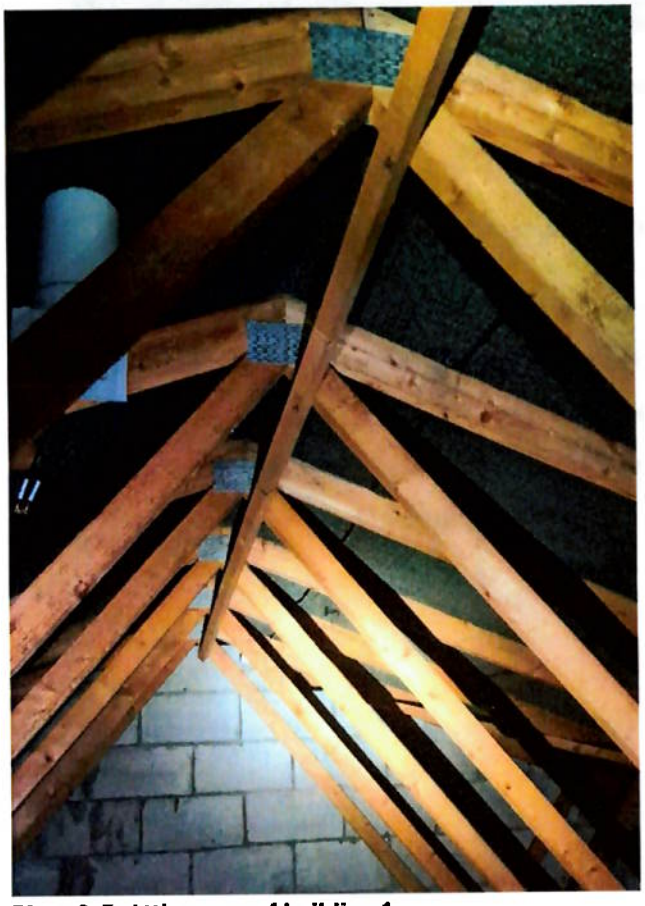

Plate 3-5: Attic space of building 1

Amphibian survey for proposed data centre development on lands adjacent to Huntstown Power Station, North Road, Finglas, Dublin 11

Prepared by Triturus Environmental Ltd. for Huntstown Power Company Ltd.

June 2022

Please cite as:

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Table of contents

1. Introduction

1.1 Background

Triturus Environmental Ltd. were contracted by Huntstown Power Company Limited to conduct an amphibian survey at a c.12.9 hectares site to the northwest of the M50 orbital ring in the townland of Johnstown and Coldwinders, North Road, Finglas, Dublin 11, immediately east of Huntstown Power Station (see **Figure 2.1** below). The baseline survey would inform the preparation of EIAR reporting for the proposed development of 2 no. data centre buildings arranged over 3 stories and associated structures and infrastructure including water treatment facility, sprinkler tanks, diesel generators and diesel fuel storage, associated plant, vehicular access roads, car and bicycle parking, attenuation ponds, sustainable urban drainage measures, underground foul and storm water drainage network, associated landscaping and boundary treatment works.

The preliminary ecological appraisal of the study area (Sands, 2019) specified that there was some suitability for smooth newt (*Lissotriton vulgaris*) and common frog (*Rana temporaria*) in an onsite drainage channel network. Considering these findings and historical records of smooth newt within the 10km grid square containing the site (NBDC data), it was deemed necessary to conduct an amphibian survey of the area. This was conducted in the drainage channel network within existing agricultural grassland habitat contained within the site boundary.

1.2 Legislative background & amphibian conservation

Both common frog and smooth newt are protected under the Irish Wildlife Act 1976-2021, although both species are listed as 'Least concern' on the most recent Irish Red list (King et al., 2011). Furthermore, common frogs are protected under the and are listed on Annex V of the Directive on the Conservation of Natural Habitats of Wild Fauna and Flora (92/43/EEC) ('EU Habitats Directive').

Despite common frogs being widespread in Ireland, wetland drainage and intensive urban and suburban development, particularly around cities, was perceived as a significant pressure removing terrestrial and aquatic habitats causing some local extinction (Reid et al., 2013). However, no significant threats to the Irish frog population have been identified and the latest Article 17 conservation assessment for the common frog in Ireland reported its overall conservation status to be 'Favourable' with a conservation trend of 'stable' (NPWS, 2019).

The smooth newt is a species of carnivorous amphibian that is found throughout continental Europe and is Ireland's only native newt species (King et al., 2011). The IUCN categorises the species as of 'least concern', as their populations are stable throughout their range (Arntzen, 2009), although the loss of suitable terrestrial habitats for over-wintering or refuge remains a concern. Smooth newt are also listed under Annex III of the Bern Convention. It is an offence to capture or kill a newt in Ireland without a licence. It must be noted that the non-native alpine newt (*Ichtyosaura alpestris*) was first discovered in Galway (Meehan, 2013) and has since been discovered in Counties Offaly, Tipperary and Down[1].

[1]https://www.independent.ie/irish-news/news/beautiful-but-deadly-alpine-newt-discovered-in-three-irish-counties-41491197.html

1.3 Amphibians and drainage channel habitats

Typically, amphibians require both aquatic and terrestrial habitats to complete their semi-aquatic life cycle (Dodd & Cade, 1998). The smooth newt life cycle has been shown to have rather complex requirements and they occupy a succession of ecological niches throughout their lives, alternating between aquatic and terrestrial habitats during different life stages (Verrell et al., 1986). For example, adult newt require terrestrial habitats for foraging and overwintering, as well as aquatic habitats for breeding (Fasola & Canova, 1992). Smooth newts have been shown to use a variety of water bodies during the breeding season including lakes, natural ponds, garden ponds and slow-moving drainage channels (Meehan, 2013). A mixture of deciduous and coniferous woodland, scrub, unimproved grassland and gardens are considered suitable terrestrial habitat types (Oldham et al., 2000; Pavingnano et al., 1990). Breeding takes place in water during the spring (April and May) but can at times extend into early summer. Although adult newt have been shown to occupy breeding sites for up to four months, breeding is not continuous. Males tend to arrive at ponds earlier than females (Verrell & McCabe, 1988) and most of the breeding season is used by females for oviposition on suitable macrophyte plant material. After metamorphosis, juvenile smooth newt become solely terrestrial, spending several years on land until reaching maturity. It has been estimated that newt return to aquatic habitats to breed from around three years of age (Verrell et al., 1986).

Still water ponds and still-water channels where pH >5, with abundant prey, a diversity of submerged and emergent broadleaved vegetation for egg attachment, which are free of predatory fish are favoured by smooth newt (Beebee, 1985). Running waters such as rivers and fast flowing drainage channels are generally avoided but populations have been known to occur in very slow flowing drainage channels with limited riparian overgrowth, incorporated with surrounding terrestrial habitats that provide cover for foraging and hibernation (Kinne, 2006). Occurrence is negatively associated with steep banks, deeper channels or areas which are heavily shaded (Ildos & Ancona, 1994). Mostly, smooth newts will remain relatively close to the breeding areas once the habitat quality immediately surrounding the breeding water body is optimal and has good connectivity (Mulkeen et al., 2017). Anthropogenic water bodies such as drainage channels have been shown to have limited value for newt occupation. They are typically temporary by nature, depending on depth and are primarily governed by precipitation, evaporation and ground-water exchange (Brooks & Hayashi, 2002). The majority of drainage channel habitats can be considered of poorer quality amphibians and can function as ecological traps (Loman, 2002) and do not offer long term prospects for a local population due to poor ecological functionality (Suislepp et al., 2011). This is due to the temporary nature of such water bodies which can dry up before tadpole metamorphosis can occur (Dimauro & Hunter, 2002). Previous studies have suggested that although drainage channels may not be used as breeding areas, they may be used by amphibians for hibernation and as ecological corridors for meta population movements (Elmberg, 2008; Mazerolle, 2004). Drainage channels suitable for amphibians are rare in Ireland due to the known intensive farmland management practices including regular vegetation clearance and deepening. Consequentially channels are subject to regular management, i.e. over-deepening and widening do not tend to support macrophytes suitable for egg attachment and or gently sloping banks for access and egress. They are also subject to eutrophication pressures and sedimentation carried in runoff and may also contain chemical residues from spraying (i.e. herbicides & pesticides) in intensively managed farmland. The resultant conditions are generally poorly suited to amphibians.

2. Methodology

2.1 Desktop review

A desktop review of the available data on amphibians for the 2km grid squares containing and adjoining the Huntstown development (O14A, O14B & O14F) was undertaken. These included a review of data records held by the National Biodiversity data Centre (NBDC), accessed on the 18th May 2022. Furthermore, a review of ortho-photography was undertaken to examine the presence of ponds, wetlands and the surface water networks with amphibian suitability adjoining the survey area.

2.2 Amphibian surveys

Targeted amphibian surveys, focused on smooth newt, were undertaken historically at the Huntstown site on 19th September 2019, with follow-up surveys undertaken on the 3rd May and 25th May 2022. The purpose of these site visits was to assess site utilisation (presence/absence) and overall habitat suitability for smooth newt and also common frog. The surveys were conducted under licence C130/2019 and C37/2022, respectively, under sections 23 & 34 of the Wildlife Acts 1976-2021 issued from the National Parks and Wildlife Service (NPWS).

The primary method used to detect amphibians was via sweep netting of the margins of the surveyed drainage channel habitats. During the 19th September 2019 and May 2022 site visits, sweep netting followed a standardised protocol in order to produce abundance estimates which are comparable across sampling periods and across sites. Elements of best practice used in the UK and Ireland were be employed (e.g. Meehan, 2013; Reid et al., 2013; JNCC, 2004). The UK method for evaluating ponds for selection as Sites of Special Scientific Interest (SSSIs) (Nature Conservancy Council, 1989) was used in particular for searching for smooth newt to establish a CPUE. This protocol uses a sampling effort of fifteen minutes of netting per 50m of pond shoreline, and this was broadly applied to drainage channel habitats. The amphibian survey also included visual daytime searching and torch surveys of terrestrial refugia to help detect terrestrial amphibian populations.

As per typical licence conditions, it is required to make a submission of return on the number of animals caught to the NPWS. Adult smooth newts, where recorded, are measured and sexed before being returned alive to the site of capture. Where life stages other than adults are encountered (i.e. juveniles), they are recorded simply as efts. All common frog tadpoles would have matured to frogs during the respective site visits, whereas newt efts are not always fully matured at this stage of the year.

2.3 Biosecurity

All equipment used was disinfected with Virkon® prior to and post-survey completion, and best practice precautions were employed to prevent the potential spread of disease/ viruses, including rana viruses or chytrid fungus. By thoroughly cleaning and disinfecting equipment it helped prevent the spread of invasive invertebrates, plants and other species attaching to equipment immersed in water. The Check-Clean-Dry approach was applied after completion of work. Of particular importance, pond nets and waders were dried for 48 hours following survey completion. Should the symptoms of disease in monitored populations be identified, they would be reported to NPWS immediately.

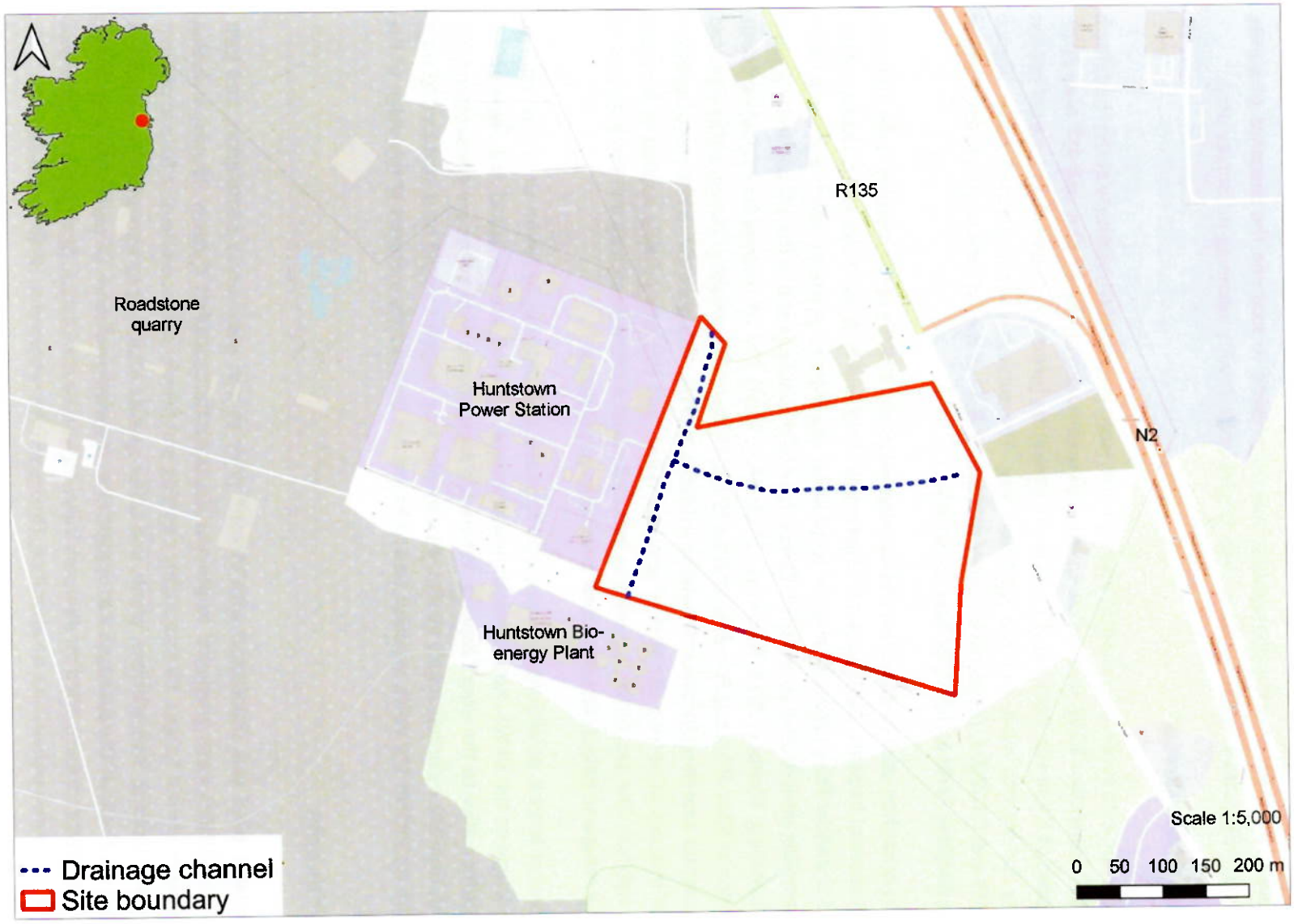

Figure 2.1 Overview of the Huntstown Power Station survey area, Dublin 11

3. Results

3.1 Desktop review

A desktop review of amphibians within the 2km grid squares O14A, O14B and O14F which encompassed and adjoined the survey area revealed only a low number of amphibian records (NBDC data). Smooth newt were recorded by Steve Judge in September 2018 at Huntstown Quarry, c.1km south-west of the survey area (south of mature quarry settlement ponds; ITM 710541, 740924). Common frog were also recorded from Huntstown Quarry in 2018. A low number of smooth newt and common frog records were available for the wider 10km grid square O14 (NBDC data).

A review of the ortho-photography for the wider survey area was completed in an attempt to establish potential areas of suitable amphibian habitat. It was identified that quarry settlement ponds c.0.5km west of Huntstown Power Station (see **Figure 3.1** below) offered some potential for smooth newt (i.e. open water lentic habitat). However, these appeared to be less mature ponds (recently used for suspended solids settlement) than a separate cluster of 4 no. ponds located c.1km to the south-west of the survey site (**Figure 3.1**). These 4 no. ponds were associated with the Roadstone-operated Huntstown Quarry and were also situated immediately north of the NBDC record for smooth newt (see NBDC records above). At this location, 4 no. disused shallow and mature settlement ponds were identified on ortho-photography. The identified ponds supported visible macrophyte growth, were shallow and supported well-vegetated margins. The ponds showed characteristics of recovery since their historical use as part of quarry operations. These ponds were identified as highly suitable areas for both smooth newt and common frog and likely offered breeding and foraging opportunities. However, a targeted amphibian survey would be required to clarify the presence of amphibian populations.

3.2 Amphibian survey

No amphibians were recorded during the September 2019 site visit. Furthermore, no amphibians were recorded during two follow-up surveys in May 2022.

The initial site visit (September 2019) found that the onsite drainage channel habitats did not provide favourable conditions for either smooth newt or common frog. The two drainage channels (one running south to north with an adjoining channel east-west) did not contain water during this survey. The straightened and deepened channels were steep sided (1.0-2.5m bankfull heights) and heavily overgrown with scrub vegetation. Furthermore, the adjoining heavily managed and compacted soils in the adjoining tillage areas provided poor terrestrial habitat for amphibians (**Plate 3.1**). No evidence of amphibians was found within the survey area despite searching terrestrial refugia (deadwood, small boulders, leaf litter etc.).

Follow-up surveys in May 2022 also failed to detect amphibians. Whilst the main (south-north) drainage channel contained some water during these site visits (invariably <5cm deep with isolated pockets of water), the channel was still considered unsuitable for amphibians given low water levels, heavy siltation, very heavy shading from scrub vegetation and generally poor-quality aquatic habitat (e.g. **Plates 3.3, 3.4, 3.5**). A small 20m section of this channel had been recently excavated adjacent to

the archaeological dig site (**Plate 3.3**). Whilst this more open habitat was better suited to amphibians than elsewhere on the drainage channel, none were recorded and habitat suitability was very poor (i.e. recent disturbance, gross siltation, absence of instream vegetation, recently cleared adjoining terrestrial habitats). The adjoining east-west drainage channel was dry during May 2022 apart from a small 2x1m pool at the eastern extent (near a newly constructed plant machinery crossing) (**Plate 3.6**). Targeted surveys (sweep netting, visual daytime searching) did not record any amphibians from this pool.

Plate 3.1 Example of intensively managed tillage east of Huntstown Power Station, September 2019

Plate 3.2 Agricultural grassland (prior to cutting) east of Huntstown Power Station, May 2022

Plate 3.3 Recently cleared section of the south-north drainage channel in May 2022

Plate 3.4 Representative image of the heavily silted and overgrown drainage channels on site, May 2022

Plate 3.5 Representative image of the highly disturbed drainage channel located to the south-east of Huntstown Power Station, May 2022

Plate 3.6 Small pool/ponding area at the eastern extent of the east-west drainage channel, May 2022 (this was the only area of the channel to support water during the survey period)

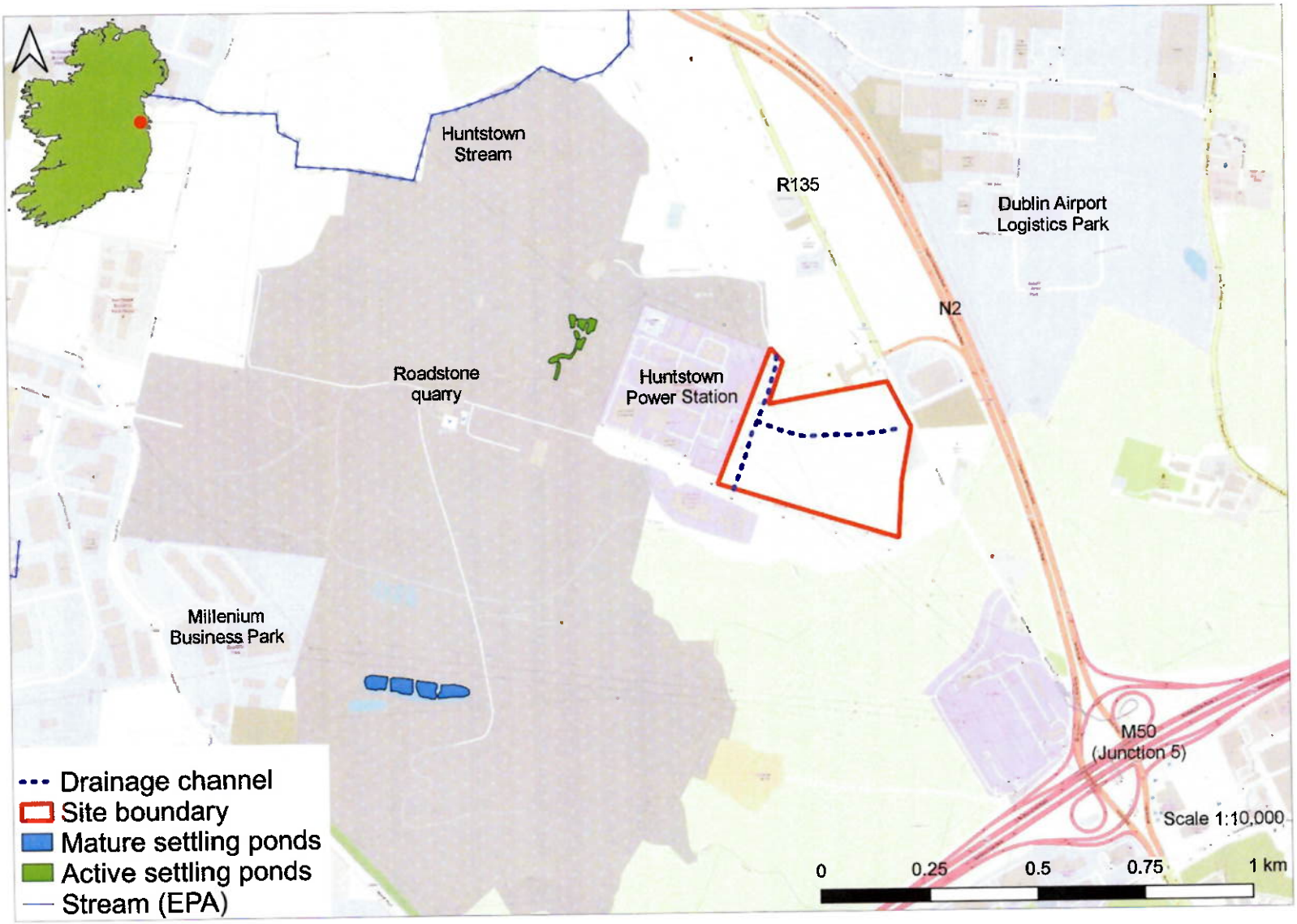

Figure 3.1 Location of pond habitats with suitability for smooth newt in the quarry areas west and south-west of the survey area

4. Discussion & recommendations

Targeted amphibian surveys of the drainage channel habitats adjacent to Huntstown Power Station in September 2019 and May 2022 did not detect smooth newt or common frog. The conditions of the surveyed drainage channel network during the initial surveys (September 2019) were unsuitable for smooth newt or common frog given they displayed characteristics inimical to amphibian ecological requirements, i.e. disturbed, seasonal drainage channels with poor-quality habitat. Whilst very low water levels were present in the main (south-north) drainage channel during May 2022 (following rainfall), conditions remained unsuitable for amphibians given the highly disturbed nature of the channel. The remainder of this discussion focuses on smooth newt but habitat requirements for common frog are similar and conditions that support one amphibian species can support the other, albeit both species are not always detected at the same site.

A study by Kinne (2006) illustrated that smooth newt prefer to breed in sun-exposed still-water ponds and avoid areas which are heavily overgrown and shaded. For these reasons it is considered that the overgrown, heavily shaded nature of the drainage channels surveyed would not provide suitable breeding habitat for smooth newt. Other characteristics such as steep channel embankments are negatively correlated with newt presence (Ildos & Ancona, 1994). Indeed, the channels surveyed were typically U-shaped with steep margins that were not considered suitable for amphibians. Although newt can travel up to 500m away from breeding ponds, they rarely travel more than 5m from the core breeding area once the surrounding landscape is highly structured in character, thereby offering both shelter and a humid microclimate (Kovar et al., 2009; Müllner, 2001). Although the survey channels evidently support water seasonally (i.e. ephemeral channels), which could offer potential breeding conditions for smooth newt, the distance between known newt habitat (e.g. ponds at Huntstown Quarry, c.1km south-west of the survey area) are considered too far for newts to travel. Moreover, likely ecological barriers and habitat fragmentation (e.g. due to roads and built land) mean colonisation probability would be low from these ponds areas. Our observations of the surrounding area indicate the intensively managed tillage lands bordering the drainage channels, active quarry roads and the built land at Huntstown Power Station itself would likely act as an ecological barrier for newt colonisation from meta populations in the wider landscape. For example, a study by Mulkeen et al. (2017) demonstrated that although smooth newt can utilise semi-natural grassland areas, intensively managed farmland lacks the structural diversity required by newt and such habitats are avoided.

In conclusion, although the drainage channels surveyed may contain water seasonally, their ephemeral nature means that water would not persist for long enough to facilitate successful amphibian breeding and recruitment, particularly for newt. Indeed, the presence of aquatic vegetation and other characteristics required for spiral egg attached were absent due to the seasonal nature of the channels. The surrounding intensively managed tillage landscape within the study area was also unfavourable for amphibians and offered little habitat suitability for movement, foraging or for winter hibernation.

4.1 Recommendations

It is recommended that during the data hall construction phase, native species-rich treelines and hedgerows be planted to increase the biodiversity value of the development lands to replace those

lost. The creation of wildflower meadows in south facing lands adjoining maintained grassland habitats would increase the biodiversity value of the development area by attracting pollinators. Where surface water features such as ponds are proposed, the margins should be shallow sloping with Geotextile Clay Liner (GCL) favoured over butyl liner. Ponds should be planted with native macrophytes and avoid commercial mixes that have not been screened for their potential biosecurity risks. These include invasive species such as parrot's feather (*Myriophyllum aquaticum*), New Zealand pigmyweed (*Crassula helmsii*) and floating pennywort (*Hydrocotyle ranunculoides*) that occur within Dublin City, pers. obs.

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