S. 37

SECTION 131 FORM

File With _____

Appeal NO:_ABP 322575-25

Defer Re O/H ☐

Having considered the contents of the submission dated/ received 17/6/25 from Applicant. I recommend that section 131 of the Planning and Development Act, 2000 be/not be invoked at this stage for the following reason(s): No new issues raised.

E.O.: Cathy Carleton **Date:** 20/6/25

For further consideration by SEO/SAO

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:** _____

M _____

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

to: _____ **Task No:** _____

Allow 2/3/4weeks – BP _____

EO: _____ **Date:** _____

AA: _____ **Date:** _____

S. 37

File With _____

CORRESPONDENCE FORM

Appeal No: ABP 322575-25

M _____

Please treat correspondence received on 17/6/25 **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

Applicants response.

Put in pouch

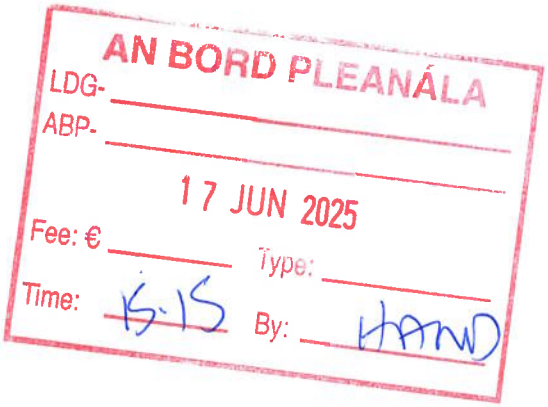
4. Attach to file	**RETURN TO EO** ☑
(a) R/S ☐	(d) Screening ☐
(b) GIS Processing ☐	(e) Inspectorate ☐
(c) Processing ☐	Cathy

	Plans Date Stamped ☐
	Date Stamped Filled in ☐
EO: Cathy Carleton	**AA:** Laoise Foley
Date: 18/6/25	**Date:** 18/06/25

JSA John Spain Associates
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Chartered Town Planners

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The Secretary
An Bord Pleanála
64 Marlborough Street
Dublin 1
D01 V902



Date: 17th June 2025
JSA Ref: BrC 24138

Dear Sir / Madam,

RE: RESPONSE TO A THIRD-PARTY APPEAL RELATING TO A DATA CENTRE DEVELOPMENT AT MULLAFARRY AND TAWNAGHMORE UPPER, KILLALA, CO. MAYO (ABP REF.: ABP-322575-25)

John Spain Associates, 39 Fitzwilliam Place, Dublin 2, are instructed by Mayo Data Hub Limited, Riverside One, Sir John Rogerson's Quay, Dublin 2 to respond on their behalf to a third-party appeal submitted in relation to a Notification of Decision to Grant planning permission for a data centre development at Mullafarry and Tawnaghmore Upper, Killala, Co. Mayo (MCC Reg. Ref.: P24/60708 and ABP Ref.: ABP-322575-25).

The decision of Mayo County Council was appealed by Dr. Colin Doyle of 12 Cottage Gardens, Ennis, Co. Clare.

The appeal was received from An Bord Pleanála accompanied by a cover letter dated 21st May 2025. As per section 129 of the Planning and Development Act 2000 (as amended), submissions must be made within 4 weeks beginning on the date of that letter. This response is submitted in advance of the deadline of **17th June 2025**.

The accompanying documents provide a comprehensive response to the issues raised by the third-party and sets out the benefits of the proposals, in line with national, regional and local planning policy. Having regard to the foregoing and enclosed, it is respectfully requested that planning permission is granted for the Proposed Development as it is considered to be in accordance with the proper planning and sustainable development of the area.

Yours faithfully,

John Spain Associates

Managing Director: P. Turley. Executive Directors: R. Kunz | S. Blair | B. Cregan | L. Wymer | K. Kerrigan
Senior Associate Directors: M. Nolan | B. Coughlan | I. Livingstone. Associate Director: T. Devlin
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RESPONSE TO 3rd PARTY APPEAL ABP-322575-25

In respect of

PROPOSED DATA CENTRE AT MULLAFARRY AND TAWNAGHMORE UPPER, KILLALA, CO. MAYO

Prepared for

Mayo Data Hub Limited

Prepared by

John Spain Associates

June 2025

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DOCUMENT CONTROL SHEET

Client:	Mayo Data Hub Limited
Project Title:	Killala Data Centre
Document Title:	Appeal Response

Rev.	Status	Author(s)	Reviewed By	Approved By	Issue Date
DV1	DV1	BrC	BrC	LW	16.06.25
F01	F01	BrC	BrC	LW	17.06.25

1.0 INTRODUCTION

John Spain Associates, 39 Fitzwilliam Place, Dublin 2, are instructed by Mayo Data Hub Limited, Riverside One, Sir John Rogerson's Quay, Dublin 2 to respond on their behalf to a third-party appeal submitted in relation to a Notification of Decision to Grant planning permission for a data centre development at Mullafarry and Tawnaghmore Upper, Killala, Co. Mayo.

The application, submitted on 21st November 2024 and registered under Reg. Ref.: P24/60708, sought permission for the following development:

- *"The construction of a single data centre building located to the north of the site, with an overall gross floor area of c. 29,076 sq.m across two levels and an overall maximum height of c. 22.764m at parapet level.*
- *The data centre building includes data halls and associated electrical and mechanical plant rooms (c. 23,908 sq.m), an administrative and staff services block (c. 5,052 sq.m) and circulation and stairs (c. 116 sq.m).*
- *2 no. external terraces are proposed to the east of the building (c. 309 sq.m) and an external generator yard to the south of the building (c. 5,205 sq.m) accommodating 25. no. backup / dispatchable generators and associated flues (to a height of c. 21.164m) within an enclosed compound.*
- *The construction of a sprinkler tank and pump house to the northeast of the site, the sprinkler tank is an overall height of c. 7.2 m and the pump house is a single storey building with an overall height of c. 4.15m and area GFA of c. 40.23 sq.m.*
- *The construction of an entrance hut at the main access to the south of the site, the hut is an overall height of c. 3.225m and area GFA of c. 11.6 sq.m.*
- *Construction of 2 no. site access points from the south and internal road network and circulation areas, footpaths, cyclist infrastructure, the provision of 56 no. car parking spaces (including 12 EV charging spaces and 7 disabled spaces, 3 of them EV), 20 no. cycle parking spaces, hard and soft landscaping and planting, site lighting, PV panels and plant at roof level, foul water connection connecting to existing WWTP in Killala Business Park, boundary treatments, green walls and all associated and ancillary works including underground foul and storm water drainage network and utility cables and all ancillary works and services.*

An EPA-Industrial Emissions Directive (IE) licence will be applied for to facilitate the operation of the proposed development. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) will be submitted to the Planning Authority with the planning application and the EIAR and NIS will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority".

Further Information was sought by the Planning Authority on seven points on 23rd January 2025. A comprehensive response was submitted to Mayo County Council on 4th March 2025.

Following consideration of the proposal and all submissions received, Mayo County Council issued a decision to grant planning permission subject to 12 conditions on 25th April 2025. The Council's Notification of Decision to Grant is enclosed at **Appendix 1**.

The decision of Mayo County Council was appealed by Dr. Colin Doyle of 12 Cottage Gardens, Ennis, Co. Clare.

The appeal was received from An Bord Pleanála accompanied by a cover letter dated 21st May 2025. As per section 129 of the Planning and Development Act 2000 (as amended), submissions must be made within 4 weeks beginning on the date of that letter. This response is submitted in advance of the deadline of **17th June 2025**.

We enclose the following with our response to the third-party appeal:

- **Appendix 1**: Notification of Decision to Grant Permission, Mayo County Council, 25th April 2025
- **Appendix 2**: Third-Party Appeal, Colin Doyle, and Cover Letter dated 21st May 2025
- **Appendix 3**: Planners Report at FI Stage, Mayo County Council
- **Appendix 4**: Planners Report at Decision Stage, Mayo County Council
- **Appendix 5**: Response to Third-Party Appeal, AWN
- **Appendix 6**: ESBN Demand Capacity Heatmap from November 2024
- **Appendix 7**: Letters of support from renewable energy providers

2.0 PLANNING POLICY

A full and comprehensive planning policy review is provided in the Planning Report and EIAR submitted with the application. We therefore focus on the key policies and guidelines relating to data centre development and any changes since the application was submitted.

2.1 FIRST REVISION TO THE NATIONAL PLANNING FRAMEWORK

Since the submission of the application for the proposed development the first revision of the National Planning Framework (Ireland 2040) has been approved.

The revised National Planning Framework (NPF) states the following support for data centre development:

"In addition, Ireland is very attractive in terms of international digital connectivity, climatic factors and current and future renewable energy sources for the development of international digital infrastructures, such as data centres. These factors help to underpin Ireland's international position as a leading location for ICT, which contributes to wider synergies in the economy as indigenous and multinational enterprises develop linkages and benefit from the potential of regional clustering.

Developing the potential offered by connectivity and the digitalisation of rural areas for the benefit of inhabitants and businesses, is important to ensure that a digital divide does not emerge between urban and rural areas, and between different regions. This can include literacy skills, access to e-health and other public services, innovative solutions, circular economy application to agricultural waste, promotion of local products supported by technology and ICT, implementing and taking full benefit of smart specialisation agri-food projects, tourism and cultural activities.

- *Implementation of the National Broadband Plan.*
- *Enhancing international fibre communications links, including full interconnection with fibre networks in Northern Ireland.*
- *Promotion of Ireland as a sustainable international destination for ICT infrastructure and associated economic activities.*
- *Promoting our cities as demonstrators of 5G information and communications*
- *technology."*

The proposed development, which represents ICT infrastructure development, is supported by the revised NPF, which was published since the lodgement (and which is the most recent national planning policy document in respect of data centre development). This demonstrates continuing national support for data centre development.

The revised NPF recognises the digital connectivity, climatic factors, and existing and future renewable energy sources which make the country a sustainable location for ICT infrastructure and associated economic activities. The promotion of Ireland as a sustainable international destination for this infrastructure is an objective of the revised NPF under National Strategic Outcome 6 (A Strong Economy Supported by Enterprise, Innovation and Skills).

2.2 THE GOVERNMENT STATEMENT ON THE ROLE OF DATA CENTRES IN IRELAND'S ENTERPRISE STRATEGY (JULY 2022)

In July 2022, the Department of Enterprise, Trade and Employment (DETE) published the 'Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy' (the Statement). This new and updated strategy seeks to *"set out the principles that will ensure*

that th[illegible]data infrastructure that can be accommodated [within Ireland] *contributes positively to our climate and digital ambitions".*

It states that *"these principles will be reflected in energy, enterprise and planning policy, regulatory and other decisions across Government Departments, local authorities, enterprise development agencies and other public bodies".*

The Statement is focused on guiding the simultaneous transitions towards digitalisation and decarbonisation of the economy and society, emphasising that these processes can and should complement each other. The Statement emphasises the importance and value of data centre development as part of the Irish economy, underlying their role in supporting the country's position as a strategic international IT hub, stating the following: *"Data centres are core digital infrastructure and play an indispensable role in our economy and society. Data centres provide the foundation for all almost all online aspects of our social and work lives, including video calling, messaging and apps, retail, banking, travel, media, and public service delivery such as healthcare and welfare."* Data centres are also described as *"critical to Ireland's economic future, and the success of our businesses".*

The Statement acknowledges that some locations which have access to renewable energy generation, the transmission electricity network, and the gas network, may be appropriate locations for 'energy park' type developments, incorporating data centres. The proposed development represents the first phase of an 'energy park' type development.

The Statement states that "*Datacentres are integral to the economy, driving innovation, productivity, and supporting a wide range of employment-intensive businesses. They are not just optional infrastructure but a core component of Ireland's data-driven knowledge economy".* According to the Statement, the key economic contributions of data centres include:

Table 2.1: Key Economic Contributions of Data Centres

Key Economic Contributions of Datacentres
Supporting Ireland's technology sector, which contributes €52 billion (16% of gross value added) and employs 140,000 people (6% of total employment).
In 2019, the ICT sector's output was €128 billion, with exports totalling €121.4 billion.
Technology companies invested €46 billion in fixed assets and €1.392 billion in R&D in 2019.
Datacentres directly and indirectly support approximately 27,000 jobs in Ireland
They play a crucial role in attracting and retaining major technology companies and investments, enhancing Ireland's reputation as a tech-driven economy.
Datacentres are integral to the economy, driving innovation, productivity, and supporting a wide range of employment-intensive businesses. They are not just optional infrastructure but a core component of Ireland's data-driven knowledge economy.

The Statement sets out six 'Principles for Sustainable Data Centre Development' that *"should inform and guide decisions* [by public bodies] *on future data centre development"* including:

- Economic Impact
- Grid Capacity & Efficiency
- Renewables Additionality
- Co-Location or Proximity with Future Proof Energy Supply

- Decarbonised Data Centres by Design
- SME Access and Community Benefits

These six principles have been considered in full in the proposed development.

It is noted that each is presented as a **preference** rather than a requirement, however the proposed development achieves full consistency with the principles set out within the Statement.

2.2.1 ECONOMIC IMPACT

The first principle for Sustainable Data Centre Development relates to economic impact. It is as follows:

*"**The Government has a preference for data centre developments associated with strong economic activity and employment.** In particular, it favours developments in regional locations, aligned with the NPF and Regional Spatial and Economic Strategies, which will embed the technology sector in locations and communities that can benefit from this investment, employment and spill over effects. In assessing economic impact, the totality of the Irish-based economic impact should be considered and factors such as associated total corporate employment, exports, wage levels, Irish materials/services purchased taken into account.*

The availability of digital infrastructure should serve our national digitalisation objectives, drive innovation, productivity and skills across our economy aligned to the National Digital Strategy."

It is important to first note that the Statement itself highlights the positive national economic impact that data centre development has had in Ireland. It states the following:

"Digital Infrastructure such as data centres underpins our technology sector, which is increasingly cloud based. Ireland's technology sector accounts for €52 billion (16%) of gross value added and employs 140,000 people – equivalent to 6 per cent of total national employment with 40 per cent growth over the last five years.

A CSO publication, Information and Communications Technology: A Value Chain Analysis 2019, highlights the economic contribution of the ICT sector. In 2019, output for the ICT sector amounted to €128bn. Total exports of services from the sector were some €121.4bn from both foreign and domestic firms, with domestic ICT companies exporting 37 per cent of their output. Technology companies invested €46bn in fixed capital assets in 2019, with R&D investment of €1.392 bn."

The proposed development will provide local employment opportunities during both construction and operational phases. The proposed development is appropriately located in a regional location, where the investment and employment opportunities arising from the development would have a particularly positive impact.

The proposed development will attract complementary technology-based companies within the ICT sector and complementary industries to the west of Ireland which will provide for higher paying jobs and activate the local economy.

Irish data centre demand is expected to grow as more companies view Ireland as a gateway into Europe and these new companies will be driven as much if not more by speed-to-market and lower total cost of operations (both of which Mayo can offer versus Dublin).

2.2.2 GRID CAPACITY AND EFFICIENCY

The second Principle set out within the Statement relates to grid capacity and efficiency. This principle is set out as follows:

"The Government has a preference for data centre developments that make efficient use of our electricity grid, using available capacity and alleviating constraints. *Data centres should engage collaboratively with the respective system operators to understand capacity availability and required grid services across geographic locations, and where connection can be facilitated, provide grid services such as to best utilise available infrastructure to the benefit all electricity customers.*

This is in line with the CRU Direction to the System Operators related to Data Centre grid connection processing (CRU/21/124)."

The grid in the west of Ireland is currently unconstrained with sufficient capacity to accommodate the required connection for the proposed development. The project was in fact situated in this part of Ireland after consultation with Eirgrid because this location is outside grid constrained areas and in a region with a surplus of renewable power. The intention is to bring consumption close to the generation source alleviating existing transmission constraints and loss of efficiency and energy arising from transmitting electricity over long distances. The proposed development therefore fully aligns with this principle of the Government Statement, as it makes efficient use of the electricity grid, uses available capacity and helps to alleviate constraints.

2.2.3 RENEWABLES ADDITIONALITY

"The Government has a preference for data centre developments that can demonstrate the additionality of their renewable energy use in Ireland. *Developments should provide clear additionality in renewable energy delivery in Ireland, whether through new generation, repowering or otherwise increasing in-country renewable energy capacity – proportionate to the impact of their energy demand."*

Ireland has frequently needed to curtail power production from renewable sources in the west of the country due to surplus power supply from those sources and the lack of sufficient transmission infrastructure to deliver that surplus power to the Dublin region. In 2022, 1,280 GWhs of wind power were dispatched down (curtailed) and this number rose to 1,663 in 2023, meaning roughly 10% of total wind generation is lost to the country. By siting a data centre facility in a region of surplus renewable generation, the project will directly and lead to reduced curtailment – that is, increased effective generation of renewable generation resources, the purest form of additionality (an increase in effective Irish renewable power generation with no carbon cost, even for construction of new generation or transmission infrastructure). Further, the project intends to pursue private wire connections to new renewable projects if the Irish government makes such arrangements legal and such projects are developed in the project's region. On site, the project incorporates multiple decarbonization strategies, including using local bio-fuels (i.e. Hydrotreated Vegetable Oil) for stand-by generation and PV on the buildings.

The Site is connected to the grid via two independent HV lines, with planned upgrades by Irish transmission authority EirGrid set to increase power to the Site. The west of Ireland is home to multiple large operating and planned wind developments, and EirGrid is building out new capacity to deliver this power to the rest of the country, including a new interconnection in Mayo that is expected to increase deliverability to the site to 60MW scheduled for 2024.

Many these new wind projects will be require CPPAs (Corporate Power Purchase Agreements) to support their development. The Project is targeting the major technology companies as its tenant, such as Microsoft, Google, Meta, Amazon, Oracle, Coreweave, Mistral All of these companies have made commitments to offset carbon associated with the data centres and are actively seeking CPPA opportunities to do so. The project will work with local renewable developments and its customers to facilitate such CPPAs, supporting the development of additional renewable power.

2.2.4 CO-LOCATION OR PROXIMITY WITH FUTURE PROOF ENERGY SUPPLY

***"The Government has a preference for data centre developments in locations where there is the potential to co-locate a renewable generation facility or advanced storage with the data centre, supported by a CPPA, private wire or other arrangement**. Where the combination of technologies at a generation facility is built to match the demand capacity factor (e.g. endeavouring to match the maximum import capacity with export capacity), the same infrastructure may be able to assist both demand customers and generation facilities (wind/solar/battery farm). This would make efficient use of grid investments, reduce curtailment and potentially enable significant decarbonisation of the data centre. The Government also encourages the co-location of downstream value-adding activities that can make use of carbon, excess heat and other outputs from the data centre activity, such as for horticultural activities or district heating schemes."*

The project is proximal to substantial renewable generation (Glenora, Sheskin, Bellacorick, etc) and the tenants of the Project would seek to enter into CPPAs with renewable (wind) generators/producers, including direct/private wire as and when it becomes available. This will offset residual GHG emissions associated with the Proposed Development, given that the energy consumed by the development on site would be matched by renewable energy generation.

The proposed development will have the capacity to export power to the grid, up to 75MW, should the CRU and EirGrid require the project to offer export capacity to the grid. Export of dispatchable power enables renewable projects to come forward as this addresses shortages in the grid (should they arise) in times of low wind or sun.

The building is capable of interfacing with district heating should the opportunity arise in nearby developments. Heat can be recaptured from the data halls and utilised to heat the administration blocks and can be exported to district heating networks should they become available.

2.2.5 DECARBONISED DATA CENTRES BY DESIGN

***"The Government has a preference for data centres developments that can demonstrate a clear pathway to decarbonise and ultimately provide net zero data services**. It is expected that data centres will align with the EU Climate Neutral Data Centre Pact energy efficiency and water use targets and set themselves targets to achieve zero carbon electricity use at all hours. System operators will work with large energy users to facilitate accurate hourly emissions reporting, grid carbon-intensity transparency, and allow data centre to optimise computing loads to maximise use of renewables and minimise carbon emissions (as per Action 99 of Climate Action Plan 2021)."* [**Emphasis added**].

The project will follow several decarbonsation strategies including construction with low carbon cement, incorporate PV panels on rooftop to reduce carbon-based power consumption, and using biofuels for stand-by generation and seeking opportunities to re-use waste heat locally to further reduce local area carbon footprint.

As discussed above, by siting the project in a location that periodically experiences surplus renewable power generation requiring curtailment, the project will inherently help "…maximize use of renewables and minimize carbon emissions". The project's location next to the Tawnaghmore substation ensures that it is a natural connection point for local renewable projects that may be developed, giving it the opportunity to explore direct connect arrangements as such projects progress, creating further additionality.

The application was accompanied by a Commercial Energy Statement prepared by Ethos which sets out energy efficiency and sustainability measures which have been incorporated into the design.

2.2.6 SME ACCESS AND COMMUNITY BENEFITS

***"The Government has a preference for data centre developments that provide opportunities for community engagement and assist SMEs, both at the construction phase and throughout the data centre lifecycle**. Data centres should provide benefits for regional locations and their surrounding areas through placemaking, community engagement and collaboration with local and regional stakeholders to ensure they offer value to the communities in which they locate.*

Data centres are also construction projects, built environment and physical investments of scale. By necessity, they have an impact on the geography and communities in their vicinity. Data centre developers should make every effort to minimise the disruption of their construction on these communities."

As detailed above, the proposed development is aligned with the policies of the Regional Spatial and Economic Strategy for the NWRA and the National Planning Framework. The proposed development is located in a regional location, which will maximise the benefit of the project to the locality over the project lifecycle.

Data centres in Ireland are also a source of investment in human capital, in workers' skills and experience. They bring training opportunities that enhance the Irish workforce, and they support digitally enabled businesses. The proposed project will generate significant economic benefits and employment and is closely aligned with this principle.

The applicant confirmed willingness to Mayo County Council to provide a financial contribution towards the protection and restoration of Ballysakeery Glebe House, a building on the NIAH, which is located to the south of the site. This payment, required on commencement of operations, will ensure that this heritage asset is retained and protected for future community use.

SME's will be given priority during the development and construction process. Published studies indicate that a data centre can support 4 indirect local jobs per each direct job created[1]. This will be of significant benefit to the local community.

2.3 CLIMATE ACTION PLAN 2025

The Climate Action Plan 2025 (CAP25) is the third to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021. The Plan outlines strategies necessary to progress towards the goals re-affirmed in the Government's Programme for Government of a 51% reduction in greenhouse gas (GHG) emissions by 2030 and reaching climate neutrality by no later than 2050.

[1] Oxford Economics, 2018 – Google Data Centres – Economic Impact & Community Benefits

Section 5 of CAP25 states that it is to be read in conjunction with CAP24.

The Plan notes improvements being made in relation to energy, stating:

"The greatest reductions are being seen in energy. Emissions in the first half of 2024 from the electricity sector were down over 17%, (their lowest level for decades) and we are seeing increasingly positive signs across solar and wind energy. Irish wind farms generated nearly 40% of Ireland's total electricity demand in the first half of 2024, making Ireland third in the world for installed wind power capacity per capita".

It continues:

"Electricity emissions have decreased by 26.2% from 2018 to 2023 due to the increasing share of renewable generation and net electricity imports. Wind energy now counts for over a third of our electricity supply. This sector has one of the smallest carbon budgets and most ambitious reduction requirements, especially considering the increased burden from other sectors moving to electrification. Work is ongoing to reinforce the electricity grid, massively expand generation from wind and complete the building of new interconnectors with France and the UK".

With regard to electricity, CAP25 notes that there has been a 22% reduction in emissions in the electricity sector due to an increase in the share of renewable electricity generation from 2022 to 2023 with wind energy accounting for 33.7% of electricity supply and an increase in net imports of electricity. This has led to a reduction in the use of coal, oil and gas fired plat for domestic generation.

Section 12 of CAP25 deals with Industry. This section notes a reduction in emissions for this sector and notes that switching away from carbon intensive fuels to lower carbon ones has been one of the primary drivers for the reduction in emissions for the sector.

2.4 MAYO COUNTY DEVELOPMENT PLAN 2022-2028

A complete consideration of the Mayo County Development Plan 2022-2028 is contained in the Planning Report and FI Response prepared by JSA and submitted at application stage and FI Stage respectively. In addition, we refer to the Council's consideration of the proposals against their own policies in their Planner's Reports at FI and decision stage and the Notification of Decision to Grant **(Appendix 3, 4 and 1)**. The following key policies, objectives and text from the Development Plan are noted. The following Strategic Aim is of most relevance:

"Infrastructural Development - to protect, improve and provide water, wastewater, surface water and flood alleviation services throughout the county, and to facilitate the provision of high-quality information communication technology, broadband, telecommunication information and electricity network required to support and enhance the key aims of best place to live, work, visit and invest".

Chapter 4 of the Development Plan sets out the policies and objectives supporting economic development in Mayo. Policy EDP 1 sets out general support for employment uses; objectives EDO 3, EDO 7, EDO 21 and EDO 52 and policies EDP 16, EDP 17 and EDP 18 focus this support on ICT and data centre uses such as those proposed.

Section 7.4.4.5 notes that the EAConnect 1 transatlantic sub-sea fibre-optic cable comes ashore at Killala. This offers potential for the west of Ireland to become a key telecommunications and data gateway. This section notes: *"The delivery of advanced*

techno gical infrastructure in the area also provides a potential platform for the development of ICT facilities, such as data centres in the county and other businesses to set up their operations in the locality".

The policies within the Development Plan support this objective to capitalise on the county's location. INP 20 seeks to promote Mayo as a sustainable international destination for ICT infrastructure such as data centres. INO 32 seeks to maximise and widely promote connectivity of Mayo based on building on existing ICT infrastructure and sub-sea fibre optic cables where possible.

The application site is not zoned, but is contiguous with the existing business park adjacent, and forms a logical extension of existing commercial and energy-related development in the locality. The site is located to the south of Killala, a Tier 3 Self Sustaining Town. The Settlement Plan for Killala, set out in section 12.13.3 of the Development Plan, states: *"opportunities exist for Killala for a data centre and/or renewable energy hub at the Killala Business Park".*

The Development Plan Policies and Objectives provide significant support for ICT and data centre uses in Mayo to capitalise on the County's resources and to create employment and opportunities. Specifically, sections 7.4.4.5 and 12.13.3 support data centre and renewable energy at the Killala Business Park. It is considered that the proposed development of a data centre at this location, contiguous with the existing footprint of Killala Business Park is supported by the policies of the Development Plan and is Plan-led.

2.5 LARGE ENERGY USERS CONNECTION POLICY

Since the application was submitted, the Commission for Regulation of Utilities have published a proposed decision paper on their Large Energy Users connection policy.

This decision paper states that: *"the CRU is committed to working with relevant Departments in order to support the delivery of the comprehensive plan referred to in the Programme for Government. This aligns with the commitments set out in the 'Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy' which states that the principles for sustainable data centre development set out within that statement "will facilitate the appropriate plan-led approach".*

The proposed decision paper notes:

"Ireland is also a world leader in digital technologies, and the R&D and manufacturing of pharmaceuticals, biotechnology and ICT infrastructure and devices. In recent years many data centres have invested in setting up and expanding their operations in Ireland, providing employment opportunities and data services for other enterprises. Data centres are an important component of Ireland's digital sector, providing the foundation for almost all online aspects of our social and work lives. Harnessing Digital - The Digital Ireland Framework notes that data centres are "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".

2.6 PROGRAMME FOR GOVERNMENT 2025 SECURING IRELAND'S FUTURE

The role of data centres is also highlighted in the Programme for Government 2025 Securing Ireland's Future. This document outlines an ambition to facilitate data centre growth in the context of efficient grid usage and a reduction in carbon emissions, among other factors. It also notes the development of a comprehensive plan to accelerate energy generation,

connectivity, and planning processes. It states that the plan will emphasise renewable sources to provide certainty for industries making short- and medium-term investments and that the plan will also guide the development of data centre infrastructure in alignment with our decarbonisation objectives and growing Ireland's knowledge-based economy.

3.0 PLANNING HISTORY

A comprehensive consideration of the planning history of the application site and surrounding sites is provided as part of the application. This section considers the approved application.

3.1 REG. REF.: 2460708

JSA, on behalf of the application Mayo Data Hub Limited, submitted an application for a data centre and associated development on 21st November 2024.

The submission followed a comprehensive pre-planning engagement with Mayo County Council in September 2024.

The proposed development was subject to detailed design and consideration by a range of professionals to ensure that the proposed development was well designed, properly supported and fully accorded with the policies and objectives of the relevant plans and policies including the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy and the Mayo County Development Plan 2022-2028.

The application was accompanied by an EIAR and a NIS.

Following the statutory consultation period, MCC considered the scheme and requested further information on 10 points. The Planner's Report at FI stage (**Appendix 3**) noted the following:

- The Planner's Report noted that internal consultation had been carried out. The Environment Department in MCC (Flood Risk) is noted as "No further assessment required". Archaeology and the Area Engineer sought further information.
- The EIA was considered adequate, and the Planner indicated a report on the NIS would be compiled following the Further Information Request.
- Further Information was requested on 10 points.

Following the receipt of the Further Information Request on 23rd January 2025, the design team addressed each of the points comprehensively and a detailed response was submitted to Mayo County Council on 4th March 2025.

Following consideration of this response by Mayo County Council, permission was granted on 25th April 2025 **(Appendix 1)**. The Planner's Report states: *"Having reviewed the proposed details contained in the Application Documentation, EIAR & NIS, as well as the response to the further information request issued, the Planning Authority recommends that permission is granted for the proposed development in accordance with the conditions"* set out.

Permission was granted subject to 12 conditions which are applied in the interest of proper planning and sustainable development. Condition 1 required development to be carried out in accordance with the submitted documentation at application and FI stage, save for as amended by the other conditions.

Condition 2 ensures that the mitigation measures in the EIAR and NIS will be carried out in full.

Conditions 3 to 8 relate to transport, materials, noise and lighting which are welcomed by the applicant and will protect the amenity of nearby residents. Condition 9 limits plant above parapet without a further grant of permission which will ensure that any changes to the roofline will require permission.

Condition 10 ensures that works will be carried out, if deemed necessary by the Council, to facilitate a connection to a district heating network.

Condition 11 requires service cables to be located underground.

Finally, Condition 12 provides for a development contribution in line with the Council's Development Contributions Scheme.

Following public consultation, and consideration of the proposed development against the policies and objective of their Development Plan and other relevant policies and guidance, Mayo County Council granted permission for the proposed development.

3.2 PRECEDENT

3.2.1 ABP REF.: 314461 ART DATA CENTRES, ENNIS, CO. CLARE → 314474. 314461- Refused by ABP.

Planning permission was granted on 5th April 2024 for a data centre development at Tulla Road, Ennis, Co, Clare. Similar to the proposed development, this is located outside the Greater Dublin Area.

Planning permission was granted by Clare County Council; this decision was appealed by third parties.

The Board's Inspector's Report considered the proposals in section 7. Section 7.1 included a table considering the proposed development against the principles contained within the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy:

Table 3.1: Extract from Section 7 of the Inspector's Report (ABP Ref.: 314461)

Principle	Criteria	Level of Compliance
Economic Impact	*Preference for DC developments associated with strong economic activity & employment.*	*Located to NE of Ennis (Key Town) on land zoned for enterprise use (ENT3). Provision for over 500 jobs during operational phase. Digital support for a wide range of local & regional enterprises.*
Grid Capacity & Efficiency	*Preference for DC developments that make efficient use of our electricity grid, using available capacity & alleviating constraints.*	*Located beside Ennis 110kV substation. Provision of on-site gas generator, with potential to supply energy to the grid. Provision of solar panels on buildings. Provision of backup (stand-by) DC generators for emergencies. Available capacity & connections subject to CRU / Supplier agreement.*
Renewables Additionality	*Preference for DC developments that can demonstrate the additionality of their renewable energy use in Ireland.*	*Increasing number of local renewable energy suppliers serving the Grid. Evidence provided of ongoing negotiations with nearby renewable energy suppliers.*
Co-location or	*Preference for DC*	*Provision of solar panels on buildings. Provision*

Proximity with Future-proof energy supply	*developments in locations where there is the potential to co-locate a renewable generation facility or advanced storage with the data centre, supported by a CPPA, private wire or other arrangements.*	*of on-site gas generator, with potential to supply energy to the grid. Evidence provided of ongoing negotiations with nearby suppliers in relation to CPPA & willing to accept a planning condition in this regard. No on-site energy storage facilities.*
Decarbonised Data Centres by Design	*Preference for DC developments that can demonstrate a clear pathway to decarbonise and ultimately provide net zero data services.*	*Construction will be in line with the current best practice in relation to energy efficiency, decarbonization & sustainability. Solar panels on buildings. Future potential for the on-site energy centre to run on hydrogen gas.*
SME Access & Community Benefits	*Preference for DC developments that provide opportunities for community engagement & assist small and medium-sized enterprises (SMEs), both at the construction phase & throughout the data centre lifecycle.*	*Local construction phase opportunities. Provision for over 500 jobs during operational phase. Digital support for a wide range of local & regional enterprises. Several fiber optic cables in the vicinity (incl. broadband providers).*

The Inspector concluded:

"Having regard to the foregoing, I am satisfied that the proposed data centre development would comply with national and regional policy in relation to the provision of ICT infrastructure and data centres at appropriate locations. The proposed data centre would be located to the W of the Shannon and well away from the Dublin Metropolitan area where there are competing demands for energy supplies. It would serve a regional social and economic demand / need for digital storage facilities. It would be located close to the national grid and future renewable energy suppliers, as well as providing for on-site energy generation that could potentially supply the grid in the future. It would give rise to synergistic economic benefits to the local area and wider region, given its location close to Ennis and its proximity to the M18, the regional road network, and Shannon International Airport".

Following consideration of the local planning policies, the Inspector concluded:

"Having regard to the foregoing, I am satisfied that the proposed development of a data centre facility at the Toureen site, which would comply with all relevant national, regional and local planning policy, is acceptable in principle. Any potential for adverse effects on the environment

will be addressed in the following sections of this report. Compliance with Climate Action goals, policies and objectives will be assessed below".

Following the conclusion on principle, the Inspector considered compliance with climate change policies. It was noted that the proposal would connect to the national grid. The Inspector notes third-party concerns in relation to a perceive conflict in government policy in relation to national and sectoral emission reduction and climate change targets versus the promotion of energy dependent technology development such as data centres.

The Inspector noted:

"I acknowledge that data centre energy usage can be significant, and that data centre usage could result in an increase in demand for electricity from the national grid. However, I note that a balance will be struck between the supply of energy from the national grid which will be increasingly powered by renewables in the future, and from the proposed on-site energy centre which would initially be fuelled by natural gas from the nearby gas pipeline, and potentially by renewable gas supplies in the near future (incl. Hydrogen). The several standby diesel-powered generators per data hall would only be used in the in the event of an emergency power outage.

In relation to resultant CO2 emissions, the applicant has confirmed that the existing electricity providers (to the national grid) form part of the EU-wide Emission Trading Scheme (ETS). I am satisfied that any greenhouse gas emissions from these electricity generators are not included when determining compliance with the targeted reductions in the non-ETS sector, with no adverse impacts on the overall EU reduction targets anticipated. Notwithstanding the anticipated demand for energy to serve the data centre project and taking account of the EU-wide Emission Trading Scheme (ETS), I am satisfied that this issue will be ultimately addressed as Ireland moves towards meeting its objective of providing most of its energy from renewable sources by 2030 and beyond, in accordance with the Climate Action Plan, 2023.

I note that varying estimates were submitted by the applicant and some of the Third Parties in relation to the calculation of projected carbon emissions and/or savings for the project relative to the various energy sources (incl. electricity, gas & diesel). As previously stated, I am satisfied that the the diesel-powered back-up generators would only operate in emergency situations when there is a power outage. The proposed data centre would be connected to the national grid via the Ennis 110kV substation to the W, and the on-site energy centre would be connected to the natural gas pipeline to the E, however final approval to connect to these utilities' rests with the CRU, who will ultimately determine if adequate network capacity exists. It is also noted that the applicant has request a 10-year planning permission which would extend the completion date of the project beyond the target year of 2030.

It is further noted that various policy documents note that increased renewable electricity requirements linked to energy intensive investments will be mainly delivered by the development of a new Renewable Energy Support Scheme (RESS)".

The Inspector's overall conclusion on the points of climate change was as follows:

"The proposed development, which would be located to the W of the Shannon and far away from the Dublin metropolitan area and any other areas where there is a more intense demand for data centres, would comprise a plan-led approach which complies with current national, regional and local energy, planning and data centre locational policy".

The Board Order, noting its reasons and considerations, granted planning permission for the proposed development on 5th April 2024 subject to 17 conditions.

The proposed development is smaller than that granted by An Bord Pleanála in Ennis. However, both are similarly located in regional locations where there is greater opportunity to benefit from renewable energy locally. Both are located away from the Dublin metropolitan area and any other areas where there is a more intense demand for data centres. Similar to the Inspector's conclusion above, this comprises a more plan-led approach which complies with current national, regional and local energy, planning and data centre locational policy.

4.0 APPEAL RESPONSE

This section considers the Appellant's points in turn, with reference where required to AWN's supporting statement **(Appendix 5)**.

4.1 IMPACT ON CLIMATE (1-6)

The EIAR submitted with the application notes that the proposed development would have a significant adverse climate impact in the absence of mitigation, but the mitigation measures set out in the EIAR and the remainder of the application, would reduce the impact to "minor adverse".

The application was assessed by MCC who accorded with this view and state that the development "will not have a significant adverse impact on climate".

The Appellant contends in point 4 of his appeal: *"that the conditions attached to the grant of permission have no definitive enforceable mitigation measures for climate impact, other than installation of pipes to serve district heating "if deemed necessary by Mayo County Council"."*

It is noted that Conditions 1 and 2 state:

1. *"The development shall be carried out in accordance with the site layout plans, elevations, sections and particulars lodged with the application received by Mayo County Council on 21st November 2024 and details set out in the further information received on March 4th 2025, except as amended by conditions hereunder".*
2. *"All mitigation as proposed in the EIAR and NIS documents submitted shall be carried out in full."*

Both conditions clearly require that permission will be carried out in accordance with the material submitted, including the EIAR and NIS, and the mitigation contained therein.

Condition 2 ensures fully that the mitigation measures set out in the EIAR and NIS will be carried out in full.

AWN's response at **Appendix 5** restates how the mitigation measures will mitigate the climate impact to a level whereby the proposals are consistent with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy and the Development Plan, and relevant Climate policy.

4.2 REALIABILITY OF THE EIAR (8)

Paragraph 8 of the third-party appeal states that there are errors and deficiencies in the EIAR. The accompanying note from AWN addresses this point comprehensively and sets out that the EIAR provides the necessary information for the Board to undertake a robust EIA of the proposed development.

4.3 MISLEADING NARRATIVE ON PROGRESS TO NATIONAL TARGETS (9)

The appellant contends in Para. 9 that the application paints a "rather positive picture" of the prospects for achieving national GHG targets.

The response from AWN sets out the background to these targets and how while some delivery is falling below the anticipated level of provision, there are additional measures coming on stream which will contribute towards achieving these targets. Furthermore, even in

a scenario where these targets are not met within the targeted timeframe, the mitigation measures proposed will ensure that the impact of the proposed development remains minor and not significant on climate.

4.4 INVALID MITIGATION CLAIMS (10-16)

The third-party appeal makes several arguments that the mitigation proposed in the application in relation to climate impact was invalid. Each point is addressed in turn below.

4.4.1 FALSE ASSUMPTION OF AUTOMATIC ALIGNMENT (11)

The appellant states that: *"The claim that because the state has targets for renewable electricity and reduce GHG emissions that the development will follow the same trajectories is a specious argument which does not stand up to scrutiny, If this claim is accepted by planning authorise than any development of any power demand connected to the national grid would have to be judged to be in alignment with national policy (and we could dispense entirely with climate impact assessments for all future projects)".*

Contrary to the Appellant's assertion here, any project that is primarily powered from the grid will benefit from improvements to that grid. In addition, the ultimate users of the facility will seek to enter into CPPAs with renewable generators and producers, including direct/private wire as and when it becomes available.

In cases, such as the application site, where the grid is not constrained, there is a significant number of renewable energy projects located in the area, and the proposals are driven by the policies and objectives of the Development Plan, it is considered that permission should be granted.

4.4.2 EU EMISSIONS TRADING SCHEME (ETS) (12)

The appellant states that there is no mechanism in the EU ETS to ensure that Ireland's legally binding national GHG reduction targets are met.

A comprehensive technical response to this point is provided by AWN and enclosed as **Appendix 5** to this response. This response notes the benefits of the ETS and concludes *"Thus, the indirect electricity emissions and the direct emissions from backup HVO generators will operate within the ETS and will both require greenhouse gas permits under the ETS in order to operate and thus the GHG emissions associated with the Proposed Development will be in line with Section 13.3.5 of the 2025 CAP which stresses the importance of the EU ETS in reducing industry GHG emissions".*

4.4.3 INADEQUATE EMBEDDED MITIGATIONS (13)

The appellant states that the solar PV panels would meet just 0.01% of annual power demand of the data centre.

The application was accompanied by a Commercial Energy Statement prepared by Ethos which sets out energy efficiency and sustainability measures which have been incorporated into the design

The proposed data centre includes solar panels on the roof which will generate some of the energy required for the development. The remainder of the energy required will be from the national grid.

By their nature, most developments – either commercial or residential – will not be able to generate a large proportion of the energy required on site. This is reflected in national, regional and local policies which do not require this of developments.

The carbon intensity of the grid is reducing, with 40% of Ireland's electricity from renewable sources in 2023[2]. Ireland's Climate Action Plan 2025 (CAP 25) includes a target to increase the share of electricity generated by renewable sources up to 80% by 2030. This is unchanged from CAP24.

Therefore, the main source of energy for the project is essentially renewable, will necessarily have to comply with approved renewable percentage targets, and will become more renewable as time progresses and more renewable energy enters the grid in line with national targets set out in CAP24 and CAP25.

Additionally, as outlined in the EIAR the project is proximal to substantial renewable generation projects including existing, approved and planned projects (i.e.: Glenora, Sheskin, Bellacorick, etc). The ultimate users of the facilities, tenants to the applicant, would naturally seek to enter into CPPAs with renewable (wind) generators/producers, including direct/private wire as and when it becomes available. Engagement is ongoing with renewable energy providers and two letters are enclosed at **Appendix 7** from ABO Energy and a second operator (redacted for commercial reasons). The applicant has also engaged with SSE Renewables, Mercury Renewables and EDP Renewables. This demonstrates that engagement is ongoing with renewable energy providers and that they are supportive of the project.

This is of particular relevance in County Mayo, as the county has 358 MW Installed Wind Energy Capacity (5th in the country) which contributes 829 GWh of energy generated. New announced and permitted wind energy facilities, such as Oweninny 3 and Sheskin, each of them contributing in excess of 100 MW, will significantly increase the local availability of renewable energy for the project.

In November 2024, Wind Energy Ireland reported that 14% of wind energy was lost because of challenges with the transmission network. The reason for actual production being lower than the installed production capacity is that the long-range power transmission infrastructure has not been upgraded and production is often "dispatched down" (i.e.: wasted) because of lack of grid capacity. The presence of the proposed datacentre would contribute to mitigating the dispatching down by consuming locally generated renewable power which could not otherwise be transported to the east of the country, which is the location of the most significant electricity demand.

It is the view of the applicant that the proposed project can be powered from renewable sources and that the proposed project can have a positive impact in the development of additional renewable generation facilities in the County.

Backup generation on site will be provided by generators powered by HVO (Hydrotreated Vegetable Oil) to minimise the environmental impact. This back up generation has been modelled on the basis that it would operate at a maximum of 400 hours per year. In reality, it would operate for far less than this.

As set out in the EIAR, the onsite backup generation will fulfil the requirement to support the development in line with the CRU requirements. To be clear, the onsite generation proposed is greater than the demand in line with CRU requirements and emerging requirements.

[2] https://www.seai.ie/

The project, as outlined in the EIAR, will have a nominal IT capacity of 40MW, which will require circa 58MW of maximum import capacity from the grid but will effectively demand approximately 50MW of power. The on-site generation system will provide both back up to the facility and dispatchable capacity when required by the Transmission System Operator. The on-site generation system has a total of 73MW of generation capacity, far exceeding the minimum CRU requirement to provide equivalent or greater dispatchable generation than the demand.

The planned PV installation, with a nominal capacity of 50kWp, will operate continuously, directly feeding power to the internal medium voltage distribution system, further contributing to reducing the overall project demand from the grid connection. The PV installation is not intended to count as dispatchable generation.

In 2022, EirGrid restricted connection agreements for data centres in the greater Dublin area due to capacity restraints. This restriction does not apply to data centres outside this area which would indicate capacity is available. A recent ESBN Demand Capacity Heatmap from November 2024 indicates capacity in Tawnaghmore and is enclosed at **Appendix 6**.

The applicant is in discussions with EirGrid who have confirmed that they will process an application for connection for this project once the project has been granted permission by MCC and not before that.

To conclude, while onsite renewable energy generation from PV will only contribute marginally to the overall usage of the site, the data centre will be powered from the national grid. 40% of energy in the grid nationally in 2023 was renewable and this figure is increasing with new renewable projects coming on stream in line with our requirements under CAP 25. The proportion of renewable energy in the grid (i.e. "green electrons") in Mayo is also likely to be higher than urban areas such as Dublin and the surrounding counties where there are fewer renewable projects. The project will work with local renewable developments and customers to facilitate CPPAs, supporting the development of additional renewable power. This will offset residual GHG emissions associated with the proposed development, given that the energy consumed by the development on site would be matched by renewable energy generation.

The proposals for onsite dispatchable generation are in line with the CRU requirements; both existing and emerging. They also accord with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy.

4.4.4 FALSE CLAIM FOR MITIGATION BY RENEWABLE GAS (14)

The Appellant states: *"National policy requires that renewable gasses such as biomethane shall be reserved for large heat loads, and not used for electricity generation (other than short-term back-up)".*

Section 2.3.3.4 of the EIAR describes the Utility Supply to the site. It sets out the electricity connection as well as considering emergency power generation. At the end of this section the EIAR notes that a gas Above Ground Installation (part of a future planning approval) would be located in the southwest of the facility to allow for gas connection when this becomes available.

This is not part of the application, and as concluded by AWN in **Appendix 5**: *"no assessment of the facility has been undertaken for natural gas or biomethane".*

4.4.5 EMA GUIDANCE – UNSUPPORTED MITIGATION CLAIMS (15)

The Appellant states that data centres would not result in emissions savings elsewhere. He concludes: *"If there is such a benefit it would be outside of Ireland, and with the advent of AI there is unlikely to be any such saving".*

Initially, this point can be refuted. As stated by AWN in **Appendix 5**: *"Data centre facilities represent a significantly more efficient means of data storage when compared to a distributed model of enterprise data storage by individuals and companies (or 'enterprise sites') by up to 80%[3]".*

The requirement for data centres is a response to the changes in how data is stored. Personally, users now rely on cloud storage for their personal devices such as mobile phones. In addition, companies, government bodies and other entities have moved from in office data storage to using cloud storage.

Cloud storage and data centres now facilitates better storage of data which can be more easily accessed by users and the public.

If the planning system is used as an example: 10 years ago all applications were made in hard copy, a third-party would have to visit the Council office to view the hard copy of the file, and the vast majority of planning professionals worked in the office as working from home was generally not supported from office-based servers.

This application was submitted electronically on the LGMA website (requiring no hard copies and no delivery to Mayo). It was uploaded by MCC to their website where all material could be clearly accessed by third-parties. And much of the work done to prepare the application was done remotely – removing the requirement for these people to drive to a remote office.

It is clear that data centres facilitate reduced emissions elsewhere.

Ireland is a prime location for data centres due to our geographical location and climatic factors. Data centres are core digital infrastructure and play an indispensable role in our economy and society. They assist in leveraging the country's position between the US and Europe to our advantage – particularly in this case with the landing point of AEConnect 1 – the trans-Atlantic sub-sea fibre-optic cable extending from Long Island to Killala.

Furthermore, it is noted that Government Policy (in the form of the recently published first revision to the National Planning Framework), expressly recognises the fact that Ireland is a "*sustainable international destination for ICT infrastructure and associated economic activities*". The revised NPF notes that factors underpinning this include "*international digital connectivity, climatic factors and current and future renewable energy sources*" (emphasis added).

The climate of Ireland is also conducive to data centre development as our moderate climate assists with cooling.

The location of the proposed data centre is plan-led. It's location at Killala responds to the policies and objectives of the Development Plan.

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[3] Masanet, Eric; Shehabi; Arman, Lei; Nuoa, Smith, Sarah; Koomey, Jonathan; "Recalibrating global data center energy-use estimates", Sciencemag.org, February 28, 2020, Vol. 367, Issue 6481; ("Expressed as energy use per compute instance, the energy intensity of global datacenters has decreased by 20% annually since 2010....").

4.4.6 CORPORATE POWER PURCHASE AGREEMENT (CPPA) (16)

The appellant states:

"The claim that CPPAs for renewables constitute a GHG mitigation is a simplistic "get out of jail card" for planning authorities who are minded to grant permission for data centres in line with government policy on the digital economy. But this mitigation claim is untrue and threatens national climate action policy. Assigning a portion of existing or planned national renewable electricity to a new load has no benefit in reducing GHG emissions. Only if the contracted renewables represent "additional" supplies above the national policy targets could there be in certain cases a benefit".

The Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy states:

"Co-Location or Proximity with Future-Proof Energy Supply
The Government has a preference for data centre developments in locations where there is the potential to co-locate a renewable generation facility or advanced storage with the data centre, supported by a CPPA, private wire or other arrangement. Where the combination of technologies at a generation facility is built to match the demand capacity factor (e.g. endeavouring to match the maximum import capacity with export capacity), the same infrastructure may be able to assist both demand customers and generation facilities (wind/solar/battery farm). This would make efficient use of grid investments, reduce curtailment and potentially enable significant decarbonisation of the data centre. The Government also encourages the co-location of downstream value-adding activities that can make use of carbon, excess heat and other outputs from the data centre activity, such as for horticultural activities or district heating schemes".

As set out in the EIAR:

"The project will work with local renewable developments and its customers to facilitate such CPPAs, supporting the development of additional renewable power. This will offset residual GHG emissions associated with the Proposed Development, given that the energy consumed by the development on site would be matched by renewable energy generation".

The proposed development responds to the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy in that it is located in an area with no electricity constraints and strong renewable energy generation. Connection will be supported by CPPA. The proposal will accord with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy in this regard.

4.5 INVALID GHG CALCULATIONS BASED ON GRID EMISSION FACTORS (17-20)

The appellant suggests that the development should not take into account the GHG intensity of the electricity grid, but to assume that the GHG intensity of the grid should be considered to be 100% fossil fuel and ignore the physical reality on the ground.

A comprehensive response to this point is set out in the AWN response document at **Appendix 5**.

4.6 ENERGY EFFICIENCY DIRECTIVE (EED) (21)

The appellant contends that if energy consumption in the electricity sector continues to grow, driven mainly by data centres, Ireland will not reach its 2030 EED target nor its GHG target for the Electricity Sector.

A comprehensive response is provided in **Appendix 5** which notes that the proposed data centre will replace activities which have a higher GHG profile. It states:

"Data centre facilities represent a significantly more efficient means of data storage when compared to a distributed model of enterprise data storage by individuals and companies (or 'enterprise sites'). Data centres are more energy efficient than enterprise sites due to comprehensive efficiency central to the design of the Proposed Development".

As stated above, the project will work with local renewable developments to facilitate CPPAs. This will support the development of additional renewable power. This will offset energy usage and ensure that the energy consumed by the development on site would be matched by renewable energy generation.

4.7 UNSUSTAINABLE GROWTH IN DATA CENTRE POWER DEMAND (22)

The appellant states that the growth in data centre power demand is significantly outpacing the deployment of renewables.

It is demonstrated in **Appendix 5** that wind power has outpaced data centre demand every year over the period 2013-2023.

In addition to the points made by AWN in **Appendix 5**, it was noted in our FI response in November 2024, Wind Energy Ireland reported that 14% of wind energy was lost because of challenges with the transmission network. The reason for actual production being lower than the installed production capacity is that the long-range power transmission infrastructure has not been upgraded and production is often "dispatched down" (i.e.: wasted) because of lack of grid capacity. The presence of the proposed datacentre would contribute to mitigating the dispatching down by consuming locally generated renewable power which could not otherwise be transported to the east of the country, which is the location of the most significant electricity demand.

4.8 ADDITIONAL GROUNDS (23)

4.8.1 FI ITEM 1 (24-33)

The appellant, in points 24-33, reiterates concerns raised their initial observation and addressed at Further Information stage. Many of these points have been addressed in section 5.4.3 above.

The appellant queries the statement that the data centre would benefit from the CAP24 target of 80% renewable electricity in 2030. It is noted that this target of 80% remains in CAP25. It is considered that we should not disregard this target and, in any case, even if it is not met, significant progress is being made towards reaching this target. Furthermore, the electricity demand arising from the proposed development will be met by additional renewable energy by way of a CPPA, and therefore the development will not contribute to any shortfall in relation to these targets.

The appellant's second point (Point 25) states:

"The Further Information provided went on to claim that the data centre would assist in absorbing excess wind energy, which at present cannot be transmitted onwards due to lack of transmission grid capacity. The solution to this issue is obviously strengthening of the national grid, which is currently in progress in a planned manner, and does not relay on ad hoc solutions proposed by developers".

In response to this point, we note the importance of data centres to the economy. It is clear that the Government Statement supports data centres and supports these data centres in areas of grid capacity, and in regional locations, which the proposed development directly responds to. Thus, the development is not an 'ad hoc' solution, as it is government policy to locate energy demand in proximity to renewable generation. The second principle states:

"Grid Capacity and Efficiency

The Government has a preference for data centre developments that make efficient use of our electricity grid, using available capacity and alleviating constraints".

The proposed data centre is located in an area with sufficient green energy to power it. It will generate employment and commerce locally and nationally. It's location is driven by local policies supporting data centre development at this location and ICT connections which land in the local area. The provision of a data centre at this location is strongly supported by policy.

4.8.2 FI ITEM 2 (34)

This paragraph relates to a consented data centre in the vicinity.

In response to this point, AWN state:

"As outlined in Section 9.2.4 of the EIAR, the guidance from the Institute of Environmental Management and Assessment (IEMA) Guidelines (2022) which are recognised throughout Ireland and the UK as the authoritative guidance body on greenhouse gas (GHG) and climate impact assessment is that when considering the cumulative assessment, all global cumulative GHG sources are relevant to the effect on climate change. As a result, the effects of GHG emissions from specific cumulative projects therefore in general should not be individually assessed. This is due to the fact that there is no basis for selecting any particular (or more than one) cumulative project that has GHG emissions for assessment over any other (IEMA, 2022)".

4.8.3 FI ITEM 5 (35)

The appellant states: *"Item 5 of the further information request referred to the potential for use of waste heat. The applicant stated that there were no identified users but would welcome a condition to explore future uses. This rather lame response ended up as a planning condition, which I suggest neither the applicant nor Mayo Council believed would ever need to be enforced".*

The applicant wishes to reiterate their willingness to engage to provide waste heat if an appropriate end user is identified.

4.8.4 IMPACT OF ENERGY DEMAND OF PROPOSED DATA CENTRE (36-45)

Paragraphs 36-41 relate to the amount of energy used by the proposed development.

The Appellant states that the proposed development would "more than double the electricity consumption for the non-residential sector in Co. Mayo. As noted above, the project will work with local renewable developments and its customers to facilitate CPPAs supporting the development of additional renewable power. This will ensure that energy consumed on site would be matched by renewable energy generation.

Paragraphs 42-45 contend that the use of energy for data centres is inconsistent with the jobs created. The proposed data centre will have modest job creation on site but will generate many construction, off-site and ancillary jobs. The Government Statement on the Role of Data Centres in Ireland states: *"Datacentres directly and indirectly support approximately 27,000 jobs in Ireland".* It further states that data centres support Ireland's technology sector which contributes €52 billion (16% of gross value added) and employs 130,000 people (6% of total employment. As noted in section 2.2 of this Report, published studies indicate that a data centre can support 4 indirect local jobs per each direct job created. It is clear that the employment generated by this project will be far reaching.

5.0 CONCLUSION

John Spain Associates, 39 Fitzwilliam Place, Dublin 2 are instructed by Mayo Data Hub Limited to respond on their behalf to a third-party appeal submitted in relation to a Notification of Decision to Grant planning permission for a data centre development at Mullafarry and Tawnaghmore Upper, Killala, Co. Mayo.

Following a Further Information request and response, permission was granted by Mayo County Council on 25th April 2025 subject to 12 conditions.

The importance of data centres to the economy is recognised at all levels of planning policy. The National Planning Framework states with regard to the importance of data centres to wider synergies in the economy:

"Ireland is very attractive in terms of international digital connectivity, climatic factors and current and future renewable energy sources for the development of international digital infrastructures, such as data centres. These factors help to underpin Ireland's international position as a leading location for ICT, which contributes to wider synergies in the economy as indigenous and multinational enterprises develop linkages and benefit from the potential of regional clustering".

The Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy provides a set of principles to ensue that the data infrastructure that can be accommodated contributes positively to our climate and digital ambitions. It states:

"*Datacentres are integral to the economy, driving innovation, productivity, and supporting a wide range of employment-intensive businesses. They are not just optional infrastructure but a core component of Ireland's data-driven knowledge economy".*

The key economic contributions of data centres are set out in the Statement and Table 2.1 of this response.

The statement sets out six principles for sustainable data centre development. While these are set as preferences, section 2.2 of this response sets out how the proposed development accords with each of these six principles.

The energy constants in the Greater Dublin Area directs data centre development to areas with available capacity (as set out in the second principle in the Statement).

Given the requirement to locate data centres outside Dublin, the question arises as to where these data centres should be located. The Mayo County Development Plan 2022-2028 has proactively planned for data centres at the application site in a plan-led manner. In addition to general policies and objectives (in line with national and regional policies and guidelines) supporting data centre and ICT development, the County Development Plan specifically seeks data centre development at the application site. Section 7.4.4.5 of the Development Plan discusses the EAConnect 1 transatlantic sub-sea fibre-optic cable which comes ashore in Killala and states: *"The delivery of advanced technological infrastructure in the area also provides a potential platform for the development of ICT facilities, such as data centres in the county and other businesses to set up their operations in the locality".* Further, the Settlement Plan for Killala in section 12.13.3 states: *"opportunities exist for Killala for a data centre and/or renewable energy hub at the Killala Business Park".*

The decision of Mayo County Council was appealed by a third-party. A comprehensive response to each point raised in the appeal is provided in Section 4 of this response and in the response of AWN which is enclosed at **Appendix 5**.

To conclude, the importance of data centres to the economy of Ireland is enshrined in planning policy at all levels. In particular, the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy considers the requirements for data centres, mindful of their energy use, and provides strong policy support for their provision.

The grid constraints of the Greater Dublin Area are well known, and this directs data centres to regional locations outside Dublin. Mayo County Development Policies then draw this data centre development to the application site with general policies supporting data centre and ICT development in the Council and specific wording identifying the site as a location selected by the Council for data centre development.

It is considered that data centre development at this location is the definition of plan-led development.

Mindful of National, Regional and Local policies, and considering the comprehensive response to the points raised in the third-party appeal, it is respectfully requested that An Bord Pleanála dismiss the appeal and uphold Mayo County Council's decision to grant permission for this sustainable development in line with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy, the Mayo County Development Plan 2022-2028 and other relevant policies and guidelines.

Yours faithfully,

John Spain Associates

APPENDIX 1: NOTIFICATION OF DECISION TO GRANT PERMISSION, MAYO COUNTY COUNCIL, 25TH APRIL 2025

Comhairle Contae Mhaigh Eo
Mayo County Council

Planning and Development Section
Áras and Chontae, Castlebar, Co. Mayo
www.mayo.ie | 0949064000

LOCAL GOVERNMENT (PLANNING AND DEVELOPMENT) ACTS 1963-1999
PLANNING AND DEVELOPMENT ACTS 2000-2006
PLANNING AND DEVELOPMENT REGULATIONS 2001-2022
NOTIFICATION OF DECISION TO GRANT PERMISSION

TO: **Mayo Data Hub Limited**
John Spain
John Spain Associates,
39 Fitzwilliam Place,
Dublin 2
D02 ND61

Ref. No. in
Planning Register:
P24/60708
Application Received
On: 21/11/2024
Validation Date:21/11/2024
Additional Information
Received On: 04/03/2025

Notice is hereby given that Mayo County Council has on **25/04/2025** decided to **GRANT PERMISSION** to the above named, for development of land, in accordance with documents lodged, and having regard to any submission/observation received in accordance with Section 34(3) of the Planning & Development Act 2000, namely The construction of a single data centre building located to the north of the site, with an overall gross floor area of c. 29,076 sq.m across two levels and an overall maximum height of c. 22.764m at parapet level. The data centre building includes data halls and associated electrical and mechanical plant rooms (c. 23,908 sq.m), an administrative and staff services block (c. 5,052 sq.m) and circulation and stairs (c. 116 sq.m). 2 no. external terraces are proposed to the east of the building (c. 309 sq.m) and an external generator yard to the south of the building (c. 5,205 sq.m) accommodating 25. no. backup / dispatchable generators and associated flues (to a height of c. 21.164m) within an enclosed compound. The construction of a sprinkler tank and pump house to the northeast of the site, the sprinkler tank is an overall height of c. 7.2 m and the pump house is a single storey building with an overall height of c. 4.15m and area GFA of c. 40.23 sq.m. The construction of an entrance hut at the main access to the south of the site, the hut is an overall height of c. 3.225m and area GFA of c. 11.6 sq.m. Construction of 2 no. site access points from the south and internal road network and circulation areas, footpaths, cyclist infrastructure, the provision of 56 no. car parking spaces (including 12 EV charging spaces and 7 disabled spaces, 3 of them EV), 20 no. cycle parking spaces, hard and soft landscaping and planting, site lighting, PV panels and plant at roof level, foul water connection connecting to existing WWTP in Killala Business Park, boundary treatments, green walls and all associated and ancillary works including underground foul and storm water drainage network and utility cables and all ancillary works and services. An EPA-Industrial Emissions Directive (IE) licence will be applied for to facilitate the operation of the proposed development. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) will be submitted to the Planning Authority with the planning application and the EIAR and NIS will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority. at Mullafarry and Tawnaghmore Upper Killala Co. Mayo based on the reasons and considerations as outlined in the First Schedule and in accordance with the 12 condition(s) set out in the Second Schedule attached hereto entitled "Schedule of Conditions".

Comhairle Contae Mhaigh Eo
Mayo County Council

Planning and Development Section
Áras and Chontae, Castlebar, Co. Mayo
www.mayo.ie | 0949064000

Signed On: **25/04/2025**

on behalf of Mayo County Council

Mary Gordon
Head of Planning Administration

An appeal against a Decision of the Planning Authority under Part VI of the Planning and Development Act 2000 may be made to An Bord Pleanala. An appeal must be received by An Bord Pleanala within **4 weeks** beginning on the date of the making of the Decision by the Planning Authority. (N.B. not the date on which the Decision is sent or received).

Appeals should be addressed to **The Secretary, An Bord Pleanala, 64 Marlborough Street, Dublin 1** and all such appeals to the Board will be invalid unless accompanied by the appropriate appeal fee. (see attached Schedule of Fees). Persons who are not parties to an appeal must pay the appropriate fee (see attached Schedule of Fees) if their submissions or observations are to be considered by the Board.

The appeal, which must be in writing, must state name and address of appellant; the details of the nature and site of the proposed development, the full grounds of appeal and reasons, considerations and arguments on which they are based, the name of the Planning Authority and must include the appropriate appeal fee as mentioned above and the acknowledgement from Mayo County Council in respect of the submission. An appeal not complying with all the necessary requirements will be rejected as invalid by An Bord Pleanala. An appellant shall **not** be entitled to elaborate in writing upon, or make further submissions in writing in relation to, the grounds of appeal stated in the appeal, or to submit further grounds of appeal, and any such elaboration, submissions or further grounds of appeal received by An Bord Pleanala shall not be considered by it. A grant of permission shall be issued as soon as may be, but not earlier than 3 working days after the expiration of the period for the making of an appeal if there is no appeal before An Bord Pleanala on the expiration of the said period.

Please Note: In the case of a valid planning application received by the Planning Authority prior to the coming into operation of the Planning and Development Regulations, 2001, i.e. 11th March 2002, the period within which an appeal can be made to An Bord Pleanala is one month from the date of the Decision of the Local Authority.

***NOTE:-** Commercial Development is defined as development for the purposes of any professional, commercial or industrial undertaking, development in connection with the provision for reward of services to persons or undertakings, or development consisting of the provision of two or more dwellings but excludes development for purposes of agriculture.

Under Article 20 of the Planning & Development Regulations 2006, the Site Notice shall be removed by the Applicant following the notification of the Planning Authority's decision.

Comhairle Contae Mhaigh Eo
Mayo County Council

Planning and Development Section
Áras and Chontae, Castlebar, Co. Mayo
www.mayo.ie | 0949064000

FIRST SCHEDULE

Having regard to the policies and provisions of the Mayo County Development Plan 2022 – 2028, the proposed development would be in keeping with the proper planning and sustainable development of the area.

SECOND SCHEDULE - SCHEDULE OF CONDITIONS – P24/60708

1. The development shall be carried out in accordance with the site layout plans, elevations, sections and particulars lodged with the application received by Mayo County Council on 21st November 2024 and details set out in the further information received on March 4th 2025, except as amended by conditions hereunder.
   Reason: In the interests of proper planning and sustainable development of the area.

2. All mitigation as proposed in the EIAR and NIS documents submitted shall be carried out in full.
   Reason: In the interest of clarity and orderly development

3. Prior to the commencement of development, a Construction Traffic Management Plan shall be prepared and agreed in writing with Mayo County Council.
   Reason: In the interest of orderly development and traffic safety.

4. No mud, dirt or surface water is to discharge onto the public road network as a result of construction activities. Roads to be kept clean at all times.
   Reason: In the interest of traffic safety.

5. Existing roadside drainage is to be maintained at all site access locations with pipes of suitable size used so as not to impede the flow of surface water.
   Reason: In the interest of traffic safety and to avoid flooding of the public road.

6. Details, including samples of the materials, colours and textures of all the external finishes to the proposed buildings and boundary treatment shall be submitted to and agreed in writing with Mayo County Council (Ballina Municipal District Architect) prior to commencement of development.
   Reason: In the interests of visual amenities of the area.

7. The noise level shall not exceed 55 dB(A) Leq (corrected for any tonal or impulsive component) at the nearest noise sensitive locations, including dwellings, between 0800 and 2000 hours, Monday to Friday inclusive, and shall not exceed 45 dB(A) Leq at any other time. All sound measurement shall be carried out in accordance with ISO 1996-1:2016 "Acoustics – Description, measurement and assessment of environmental noise – Part 1: Basic quantities and assessment procedures". Procedures for the purpose of determining compliance with this limit shall be submitted to and agreed in writing with Mayo County Council prior to commencement of development.
   Reason: To protect the amenities of property in the vicinity of the site.

8. Comprehensive details of the proposed overall external lighting system (including carpark) and signage to serve the development shall be submitted to and agreed in writing with Mayo County Council prior to commencement of development. The agreed lighting system shall ensure that there is no light spill into adjoining properties or the public road. The lighting plan shall accord with best practice and shall be as set out in the EIAR submitted as part of the documentation submitted.

Reason: In the interest of visual and residential amenity and to protect bats.

9. No additional development shall take place above roof parapet level including lift motor enclosures, air handling equipment, storage tanks, ducts or other external plant, telecommunication aerials, antennae or equipment, unless authorised by a further grant of permission.
Reason: In the interest of visual amenity.

10. If deemed necessary and appropriate by Mayo County Council during the life of the project, the applicant shall be required to install suitable pipework to an agreed location at the sites perimeter to facilitate a district heating system.
Reason: To facilitate the development of a district heating system.

11. All service cables associated with the proposed development (such as electrical and communication cables) shall be located underground.
Reason: In the interests of visual amenity.

12. The following contributions shall be paid to Mayo County Council prior to commencement of the development. The development contributions may increase in accordance with the Wholesale Price Index for Building and Construction in January of each year from the date of grant of permission up to the date that payment is made to Mayo County Council:
    - €581,520

    Reason: To comply with Mayo County Council's Development Contribution Scheme 2023.

END OF SCHEDULE

APPENDIX 2: THIRD-PARTY APPEAL, DR COLIN DOYLE, AND COVER LETTER FROM APB DATED 21ST MAY 2025

Our Case Number: ABP-322575-25

Planning Authority Reference Number: 2460708

Your Reference: Mayo Data Hub Limited

An Bord Pleanála

John Spain Associates
39 Fitzwilliam Place
Dublin 2
D02 ND61

RECEIVED
22 MAY 2025

Date: 21 May 2025

Re: Construction of a data centre and all associated site works. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) have been submitted with the planning application.
Mullafarry and Tawnaghmore Upper, Killala, Co. Mayo.

Dear Sir / Madam,

Enclosed is a copy of an appeal under the Planning and Development Act, 2000, (as amended).

As a party to the appeal under section 129 of the Planning and Development Act, 2000, (as amended), you may make submissions or observations in writing to the Board within **a period of 4 weeks** beginning on the date of this letter.

Any submissions or observations received by the Board outside of that period shall not be considered and where none have been validly received, the Board may determine the appeal without further notice to you.

Please note when making a response/submission only to the appeal it may be emailed to appeals@pleanala.ie and there is no fee required.

Please quote the above appeal reference number in any further correspondence.

Yours faithfully,

pp. Laoise Foley

Dillon Corcoran
Administrative Assistant
Direct Line: 01-8049313

BP05

Teil	**Tel**	(01) 858 8100
Glao Áitiúil	**LoCall**	1800 275 175
Facs	**Fax**	(01) 872 2684
Láithreán Gréasáin	**Website**	www.pleanala.ie
Ríomhphost	**Email**	bord@pleanala.ie

64 Sráid Maoilbhríde
Baile Átha Cliath 1
D01 V902

64 Marlborough Street
Dublin 1
D01 V902

The Secretary
An Bord Pleanála
64 Marlborough Street
Dublin 1

Dr. Colin Doyle
12 Cottage Gardens
Ennis
Co. Clare
20th May 2025

Appeal against grant of permission by Mayo County Council for proposed Data Centre Development, at Killala 2460708

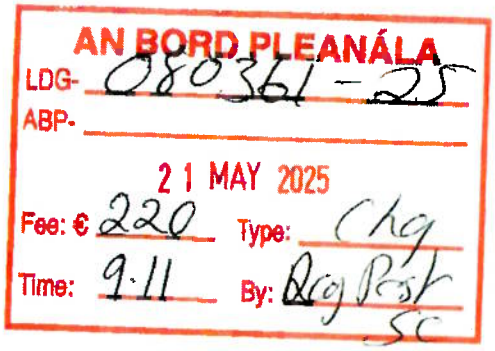
A Chara,

I wish to appeal against the decision of Mayo County Council to grant permission to Mayo Data Hub Ltd. for a data centre development at Killala.

I enclose a cheque for €220, and acknowledgement from Mayo County Council of receipt of my submission.

Mise le meas,

Colin Doyle



Introduction – Net point of Contention

1. The primary grounds for my appeal relate to climate impact and are as set out in my original submission to Mayo County Council sent on 25th January 2025. I include a copy of this submission and ask the Board to take it into account in arriving at your decision.

2. I agree with the finding in the EIAR that the development would have a significant adverse climate impact (Ch. 9, p. 38, Table 9.10). However I contest the claims made in the EIAR that this impact can be mitigated to "minor adverse" impact by the mitigation measures described in the EIAR.

3. I consider that the conclusion in the Mayo County Council Planner's Report that the development "will not have a significant adverse impact on climate" to be in error and irrational in view of the unsubstantiated claims in the EIAR, which I challenged point by point in my submission.

4. I note that the conditions attached to the grant of permission have no definitive enforceable mitigation measures for climate impact, other than installation of pipes to serve district heating "If deemed necessary and appropriate by Mayo County Council ".

5. The net point of contention regarding climate impact is therefore whether the measures described in the EIAR, Further Information, and grant of permission are capable of mitigating the climate impact to a level whereby a grant of permission would be consistent with the national climate action plan.

6. CAP 24, and the recently published CAP 25 require a sustained reduction in GHG emissions from the Electricity Sector to 2030. A development which increases GHG emissions would evidently not be consistent with this objective.

Summary of Main Points in Submission to Mayo County Council

7. My original submission was quite detailed, and I will therefore summarise the main points here, under the same headings as in the submission.

Questionable Reliability of the EIAR

8. Significant errors and deficiencies were identified in the EIAR such that one could not be satisfied that it represented an adequate or reliable basis for carrying out an assessment of climate impact.

Misleading Narrative on Progress to National Targets

9. Sections 9.3.1 and 9.3.3 of the EIAR paint a rather positive picture of the prospects for achieving national GHG targets. The reality as confirmed in EPA and EEA reports is that Ireland falls significantly short of the required trajectories to achieve any of its legally binding national or EU GHG reduction and energy targets.

Invalid Mitigation Claims

10. None of the following mitigation claims *summarised below* stand up to scrutiny.

False Assumption of Automatic Alignment

11. The claim that because the state has targets for renewable electricity and reduced GHG emissions that the development will follow the same trajectories is a specious argument which does not stand up to scrutiny. If this claim is accepted by planning authorities then any development of any power demand connected to the national grid would have to be judged to be in alignment with national policy (and we could dispense entirely with climate impact assessments for all future projects).

EU Emissions Trading System (ETS)

12. There is no mechanism in the EU ETS to ensure that Ireland's legally binding national GHG reduction targets are met.

Inadequate Embedded Mitigations

13. The solar PV panels would meet just 0.01% of annual power demand of the data centre.

False Claim for Mitigation by Renewable Gas

14. National policy requires that renewable gases such as biomethane shall be reserved for large heat loads, and not used for electricity generation (other than short-term back-up).

IEMA Guidance - Unsupported Mitigation Claims

15. The main claim made was that the data centre would result in emissions savings elsewhere as data storage is more efficient in a data centre. If there is such a benefit it would be outside of Ireland, and with the advent of AI there is unlikely to be any such energy savings.

Corporate Power Purchase Agreement (CPPA)

16. The claim that CPPAs for renewables constitute a GHG mitigation is a simplistic "get out of jail card" for planning authorities who are minded to grant permission for data centres in line with government policy on the digital economy. But this mitigation claim is untrue and threatens national climate action policy. Assigning a portion of existing or planned national renewable electricity to a new load has no benefit in reducing GHG emissions. Only if the contracted renewables represent "additional" supplies above the national policy targets could there be in certain cases a benefit.

Invalid GHG Calculations Based on Grid Emission Factors

17. The error here is related to the false assumption of automatic alignment, i.e. that the development can benefit from greatly reduced electricity grid emission factors in the future as per the national targets.

18. Even if the national targets are fully achieved, this would be an incorrect basis for calculation of indirect emissions as it ignores the physical effect of connecting a large new load to the grid.

19. A new load connected to the grid will in fact reduce the percentage renewables on the grid, and increase the overall grid emission factor. As new renewables cannot suddenly spring up to match the new load, the net effect is that resulting emissions should be calculated based on assumption of fossil fuel power generation.

20. GHG emissions from the 48MW data centre are calculated based on the above flawed methodology in section 9.7.2.2 of the EIAR to be 43,348 t/year in 2030. In reality, emissions would be in the region of 170,000 t GHG per year.

Energy Efficiency Directive (EED)

21. Achieving the national target for the EED will be key to the success of Ireland's climate action plan. If energy consumption in the electricity sector continues to grow, driven mainly by data centres, Ireland will not reach its 2030 EED target, nor its GHG target for the Electricity Sector.

Unsustainable Growth in Data Centre Power Demand

22. The growth in data centre power demand is significantly outpacing the deployment of renewables, which risks achievement of national renewable electricity and GHG reduction targets for 2030. Furthermore the failure of renewables to keep pace with growing data centre power demand demonstrates that mitigation of data centre GHG impact through CPPAs is at present inherently impossible.

Additional Grounds

23. Additional grounds for my appeal arise from a review of the Further Information submitted by the applicant, and a more detailed consideration of the impact of the energy demands of the proposed development.

FI Item 1

24. Item 1 of the Request for Further Information related to concerns on the lack of renewable supplies and compliance with CRU requirements for grid connection and back-up power. The applicant replied that the data centre would be powered from the national grid and went on to repeat the simplistic claim that the data centre would benefit from the CAP 24 target of 80% renewable electricity in 2030, i.e. the automatic alignment claim which was discussed and rebutted in detail in my original submission.

25. The Further Information provided went on to claim that the data centre would assist in absorbing excess wind energy, which at present cannot be transmitted onwards due to lack of transmission grid capacity. The solution to this issue is obviously strengthening of the national grid, which is currently in progress in a planned manner, and does not rely on *ad hoc* solutions proposed by developers.

26. The large fixed load of the proposed data centre would absorb around 50% of all of the wind energy in the county[1], which is hardly helpful, as this energy would never be available for transmission onwards to other consumers.

27. The suggestion by the applicant that the data centre would have a positive impact in the development of additional renewable generation facilities in the County is self-serving and highly questionable. I presume that this is a reference to the possibility of a CPPA agreement with renewables projects which are already in the development pipeline, i.e. projects with development consent and connection agreement. To be clear, any such CPPA would be of no benefit in terms of the objectives of the national CAP, as the data centre would consume the renewables that were required to meet the CAP targets for the rest of the economy.

28. Any objective analysis would have to conclude that the proposed development would in fact act against achievement of the national energy and climate targets. The CAP24/25 renewables targets were aligned with EirGrid[2] electricity demand growth projections to 2030 which were published in 2023. Allowance in these projections was made for a substantial median growth scenario in data centre power demand[3] to 2030 based on existing connection contracts only.

29. Consequently there is no allowance in CAP24/25 to accommodate additional large loads such as data centres granted planning consent and grid connection agreements since 2023.

30. Were the proposed data centre to have a neutral impact on the desired national decarbonisation transition, additional renewables supplies would be required, beyond the very ambitious targets in CAP24/25.

31. A simple calculation shows the scale of additional renewables required. Let us assume for the purposes of this discussion that the state will somehow achieve the 80% target. To ensure that the 80% is maintained and that there is no increase in GHG emission when the new 48 MW data centre load is connected, an additional renewable power supply of 48 MW would be required (annual average). This could be met for example by around 180 MW (installed capacity) of additional wind power (say around 60 large wind turbines), or around 480 MW (installed capacity) of additional solar PV (around 7 square kilometres of solar farms). These estimates represent renewable supplies which would have to be additional to the renewables targets set out in CAP24/25.

32. However there is no mechanism within CAP24/25 for automatic adjustment of renewables targets to accommodate new data centre loads (other than growth in demand from existing connection contracts). Operation of the proposed data centre would therefore impact negatively on achievement of the CAP24/25 targets.

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[1] According to Wind Energy Ireland, Mayo produced 829 GWh in 2023. The data centre would absorb around 50% of this energy.

[2] Shaping Our Electricity Future, EirGrid July 2023

[3] Around 6 TWh, corresponding to an additional 685 MW annual average demand from existing connections

33. Regarding the question of grid connection capacity, the applicant referred to an ESB networks demand capacity heatmap. However, the power heatmap provided indicates demand capacity availability of only 26.83 MVA [4], whereas the power demand of the data centre is stated in the EIAR to be 48 MW, and in the further information 58 MW maximum import capacity is stated. No explanation was provided for the evident disparity between the reported available supply and projected maximum demand.

FI Item 2

34. Item 2 in the request for further information referred to an existing planning permission for a data centre nearby, and sought justification for a proposed second data centre. The applicant's rather lengthy response basically said that this already consented data centre would be in line with national and regional policy, from which one could conclude that the applicant believed that two data centres at this location were quite justifiable. There was no consideration of cumulative impact in terms of GHG emissions or cumulative power demand.

FI Item 5

35. Item 5 of the further information request referred to the potential for use of waste heat. The applicant stated that there were no identified users but would welcome a condition to explore future uses. This rather lame response ended up as a planning condition, which I suggest neither the applicant nor Mayo Council believed would ever need to be enforced.

Impact of Energy Demand of Proposed Data Centre

36. While the proposed data centre has a moderate power demand in the context of other data centre applications before the planning authorities, it would be an extremely large electrical load in the context of County Mayo.

37. The availability of electrical power in County Mayo is an energy resource which enables industrial/commercial development and makes possible the decarbonisation of residential heating, and of transport. The power demand of the proposed data centre needs to be considered in this context.

38. Based on CSO statistics, the total metered power consumption in County Mayo in 2023 was 69 MW[5] (annual average). Residential consumption represented 27 MW, and non-residential consumption represented 42 MW (annual averages).

39. The proposed data centre power demand of 48 (or maybe up to 58) MW would more than double the electricity consumption for the non-residential sector in Co. Mayo. This would have to be considered a profound consumption of an electricity resource.

---

[4] One can take MVA to be a maximum estimate of the power in MW

[5] 605 GWh Total, Residential 238 GWh, Non-residential 366 GWh, CSO Table MEC03

40. In light of the limited available distribution capacity of 26.83 MVA, this is not an aspect that can be lightly brushed over, as was done by the applicant in the further information, referring merely to the applicant being:

> "in discussions with EirGrid who have confirmed that they will process an application for connection for this project once the project has been granted permission by MCC and not before that."

41. It is quite appropriate at this planning stage to consider if such a large resource allocation to a data centre could be economically or socially justified. A concern reasonably arises as to whether there would be sufficient remaining distribution capacity to serve the needs of future industrial/commercial development and to provide for the necessary electrification of the residential and transport sectors in the county.

42. The 48 MW data centre would consume 420,480 MWh of electricity per year. This would for example represent the electricity consumption around 100,000 households. The immediate economic benefit would be the creation of 96 jobs (3 shifts at 32 per shift), indicating an extremely large energy resource consumption of 4380 MWh per job.

43. Based on CSO data for the non-residential sector, and a national workforce of 2.78 million, I calculate the average annual energy consumption per job in Ireland to be just 8 MWh. The proposed data centre would therefore use around 550 times more energy per job, than is the case for the rest of the economy.

44. The question can be put another way: how many jobs could be supported by the same energy consumption as the proposed data centre? The answer is 96 x 550 = 52800 jobs.

45. The large energy consumption per job associated with the data centre would clearly compromise other less energy hungry job opportunities. The economic and social risk inherent in going ahead with the proposed data centre would therefore be to lock County Mayo into an energy constrained future, which would limit economic development and job creation for decades.

Gmail

Colin Doyle <colindoyle57@gmail.com>

Acknowledgement of receipt of submission on a planning application

1 teachtaireacht

3 Eanáir 2025 ag 12:13

OnlinePlanning <onlineplanning@planning.localgov.ie>
Freagair-Chuig: OnlinePlanning <onlineplanning@planning.localgov.ie>
Chuig: colindoyle57@gmail.com

Submission No.:
150000023597

Date of Issue:

03/01/2025
12:12pm

THIS IS AN IMPORTANT DOCUMENT

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Mayo County Council

PLANNING APPLICATION REFERENCE No: 2460708

A submission/observation in writing, has been received from Colin Doyle on 02/01/2025 in relation to the above planning application.

The appropriate fee of €20 has been paid. (Fee not applicable to prescribed bodies)

The submission/observation is in accordance with the appropriate provisions of the Planning and Development Regulations 2001 and will be taken into account by the planning authority in its determination of the planning application.

Yours faithfully,
Mayo County Council

IS DOICIMÉAD TÁBHACHTACH É SEO

COINNIGH AN DOICIMÉAD SEO SLÁN. BEIDH ORT AN ADMHÁIL SEO A CHUR AR FÁIL DON BHORD PLEANÁLA MÁS MIAN LEAT ACHOMARC A DHÉANAMH IN AGHAIDH CHINNEADH AN ÚDARÁIS PHLEANÁLA. IS É SEO AN

tAON FHIANAISE AMHÁIN ATÁ ANN A NGLACFAIDH AN BORD PLEANÁLA LEIS GUR CUIREADH AIG(.ACHT FAOI BHRÁID AN ÚDARÁIS PHLEANÁLA MAIDIR LEIS AN IARRATAS.

Mayo County Council

UIMHIR THAGARTHA AN IARRATAIS PHLEANÁLA: 2460708

Maidir leis an iarratas pleanála thuasluaite fuarthas aighneacht/tuairim i scríbhinn ó Colin Doyle ar 02/01/2025.

Íocadh an táille chuí de €20. (Ní chaithfidh comhlachtaí forordaithe aon táille a íoc)

Tá an aighneacht/tuairim ag teacht leis na forálacha cuí atá i Rialacháin Phleanála agus Forbartha 2001 agus cuirfidh an tÚdarás Pleanála sin san áireamh agus é ag déanamh cinneadh ar an iarratas pleanála.

Is mise le meas,
Mayo County Council

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Copy of Submission to MAYO CC

Dr. Colin Doyle
12 Cottage
Gardens
Ennis
Co. Clare
02/01/2025

Re: Proposed Data Centre Development, Killala – 2460708

A Chara,

I wish to make a submission regarding the above planning application.

Introduction

My main concern is indirect greenhouse gas emissions (GHG), and the resulting impact on climate in the national context. The EIAR submitted by the applicant concluded that the climate impact would be "not significant". However, in my considered opinion the proposed development would in fact have at least a major adverse climate impact as it would contribute to exceedance of the legally binding carbon budgets and hinder achievement of national decarbonisation goals as set out in Climate Action Plan 2024 (CAP 24).

The climate assessment presented in the EIAR was based on a number of misleading and incorrect interpretations of national and EU climate policies, and on unjustifiable assumptions which minimised the magnitude and impact of the GHG emissions. There are also a number of untrue statements, misattributed references, along with many errors. Small errors and omissions can be expected in any large report, but in this EIAR the errors are of such a nature that they totally undermine the report. I submit that the report is an inadequate basis for the council to undertake their environmental impact assessment.

There is no consideration in the EIAR of the impact of the proposed development in the context of Ireland's obligations under the Energy Efficiency Directive (EED). The EED requires Ireland to reduce both its primary energy consumption and final energy consumption by 2030. The proposed development will increase both primary and final energy consumption contrary to the national objectives as set out in the recent National Energy and Climate Plan 2021-2030 (NECP).

Detailed Submission

Climate Impact

The IEMA and TII guidelines referenced in the EIAR (Ch. 9, p. 13) provide an appropriate framework for assessing climate impact. The EIAR spends quite a number of pages considering the impact, but the assessment procedure is in fact very simple and can be summarised as follows:

Firstly, one asks will the proposed development cause additional GHG emission and result in an adverse impact. Secondly one evaluates the mitigation measures and assesses the residual impact

The proposed development will give rise to 62,450 tonnes of mainly indirect GHG emissions according to the EIAR (Ch. 9, p.35). By IEMA/TII criteria, this is considered a significant adverse climate impact as any increase in GHG emissions is not consistent with a pathway to net zero. Ireland's national climate policy includes legally binding carbon budgets which will require steep reductions in emissions to 2030. A proposed development which increases national GHG emissions evidently would not be consistent with this objective.

The EIAR concluded that there would be a significant moderate adverse climate impact (Ch. 9, p. 38, Table 9.10), indicating that it "falls short of full contribution to Ireland's trajectory to net zero".

I submit that there is "no meaningful absolute contribution to Ireland's trajectory towards net zero" and consequently the adverse impact is major, and not moderate as concluded in the EIAR.

Regarding mitigation, the EIAR appeals to a number of mitigations including: achievement of renewable electricity targets in CAP 24, achievement of the national transition objective of net zero in 2050, the EU ETS, and Corporate Power Purchase Agreements for renewables (CPPAs). As discussed in detail further below, none of these claimed mitigations stand up to analysis, and all can be dismissed as fundamentally flawed.

Given that there is no demonstrated mitigation, in accordance with the criteria set out in Table 9.4 in the EIAR, the data centre could justifiably be characterised as having a major adverse impact. The criteria for major adverse impact are as follows:

"

- The project's GHG impacts are not mitigated.
- The project has not complied with do-minimum standards set through regulation, nor provided reductions required by local or national policies; and
- No meaningful absolute contribution to Ireland's trajectory towards net zero. " (extract from Table 9.4, p. 16.)

As the proposed data centre will result in an increase in national GHG emissions, with no demonstrable mitigation, it clearly could not contribute to a trajectory to net zero.

Mayo County Council as a "relevant body" under the Climate Act 2015 (amended 2021) is required to carry out its functions in a manner consistent with the current climate action plan (CAP 24). Granting permission to a project which will increase GHG emissions would not be consistent with CAP 24.

Questionable Reliability of the EIAR

In any large report it is inevitable that there may be small errors and omissions. Generally these are obvious clerical errors or minor mix-ups, and do not interfere with interpretation of the document, or cause one to lose confidence in the document. However a number of elements of the EIAR struck me as being in serious error and some elements were frankly inexplicable. The following is a list of these significant errors which I picked up on a preliminary reading of chapter 9:

Ch. 9, p. 6:

Under a discussion of CAP24, the EIAR states:

> "CAP24 provides that emissions from industry sectors covered by the ETS are subject to EU-wide rather than national targets set out under EU Effort Sharing Regulation." (emphasis added)

The above statement is quite confused. Obviously ETS is subject to EU-wide control, and the Effort Sharing Regulation is quite a separate matter as by definition it applies to non-ETS sectors. Use of the word "rather" suggests that national targets may not apply to the Irish ETS, which is obviously incorrect. To be clear, CAP24 does not contain any text which could be interpreted as above. It is clear that the Irish ETS is subject to EU-wide control, as well as national control with assigned legally binding carbon budgets in CAP24.

The EIAR goes on to quote from a box text in CAP24 as follows:

> "Box 2.1 states:
>
> "emissions from electricity generation and large industry in the ETS are subject to EU-wide targets which require that emissions from these sectors be reduced by 42% by 2030, relative to 2005 levels".

Reference to 42% could be forgiven as an ordinary error, as the correct figure of 62% was given elsewhere in the EIAR. But, the disturbing aspect of the above quote is that Box 2.1 in CAP24 does not contain the above text. The text was presented in the EIAR within quotation marks implying that it was copied from CAP24, but it was clearly an incorrect re-wording by the author, falsely presented as a quote.

Ch. 9, p.7

Table 9.1 presents details of the carbon budgets. There is a minor typo in the heading, but how is one to explain the annual reduction of 15.3% figure for the second budget period as a typo, when the correct value is 8.3% ?

Ch. 9, p.8
In a discussion of prospects for a pathway to net zero by 2050 the EIAR references a report by ESB Networks:

> "ESB Networks has recently published "Networks For Net Zero – Delivering the Electricity Network for Ireland's Clean Electric Future" (ESB Networks, 2023) which outlines a glidepath to net zero by 2050." (emphasis added)

The above is a gross simplification and misrepresentation of the ESB Networks report. The report provides an overview of the governance, management, innovation, and technical aspects required to address the challenge of decarbonising the grid. The report certainly does not provide a simplistic "glidepath" to net zero by 2050.

The EIAR then refers to a UCC / MaREI report "Our Climate Neutral Future – Zero by 50" (UCC / MaREI, 2021.)" Presentation of the MaREI projections as a realistic estimate of what is likely to happen in terms of decarbonisation is a complete misrepresentation of the report. The MaREI report is clearly a call for action, pointing out that there are already available renewables options, and that decarbonisation is theoretically feasible. This falls far short of any guarantee that net zero can be achieved by any particular date. The consultants who prepared the EIAR provide their own view on when the electricity grid will be decarbonised:

> "Although the pathway may vary somewhat depending on future policy decisions, it is likely that net zero electricity (shown in green in Figure 9.3) will be achieved prior to 2040"

This will certainly be news to anyone who is even vaguely acquainted with the national decarbonisation challenges, and is in direct conflict with projections by both SEAI and EPA. There are even uncertainties in energy projections to 2030, which is just 5 years away, and making projections to 2040 is fraught with much greater uncertainty. In the spreadsheet accompanying its recent report [1] the EPA provides estimates on GHG emissions from the electricity sector beyond 2030, based on the most comprehensive energy and socioeconomic models available. The modelled emissions from the electricity sector in 2040 are 2.48 million tonnes of GHG/year, implying that based on present knowledge and implementation of all additional measures that the electricity grid is unlikely to be decarbonised by then.

The decarbonisation pathways shown in Figure 9.3 of the EIAR are therefore purely speculative. The Figure is titled:

> "Figure 9.3 Net Zero Energy System Emissions Reduction Profile (UCC / MaREI) (ESB Networks, 2023)"

This figure does not exist in the ESB Networks report referenced, nor in the MaREI report referenced. It is quite unsatisfactory to provide incorrect references in an EIAR.

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[1] Ireland's Greenhouse Gas Emissions Projections 2023 – 2050, EPA, May 2024

Ch.9, p. 10
The table of emission factors is titled:

"Table 9.3 Electricity GHG Emission Intensity 2022 - 2030 (SEAI, 2023)" (emphasis added)

The data is presented as being from SEAI, but no such table occurs in SEAI reports from 2023. I assume that the data has been calculated by the authors and falsely attributed to SEAI.

Ch. 9, p. 20
In discussing the EPA (2023) GHG projection report the EIAR includes the following quite strange statement:

> "While emissions are projected to decrease in these areas, emissions from agriculture are projected to grow steadily due to an increase in animal numbers." (emphasis added)

To anyone familiar with Ireland's emissions profile the above reference to emissions from agriculture increasing is quite bizarre, as these emissions are currently decreasing, and are projected by the EPA to decrease to 2030, under the "with additional measures" scenario. The sentence in question certainly did not originate from the EPA (2023) report.

Based on the same EPA (2023) report, the narrative in the EIAR goes on to state that Ireland will meet its EU Effort Sharing Regulation (ESR) target

> "However, the projections indicate that Ireland can meet its non-ETS EU targets over the period 2022 – 2030 assuming full implementation of the Climate Action Plan and the use of the flexibilities available (EPA, 2023b)."

This assessment was even out of date and irrelevant when published by the EPA in 2023, as the ESR reduction target for Ireland had at that stage changed from 30% to 42%, as in fact noted in the EIAR Ch.9, p.2. The new target was however not formally assessed by the EPA pending allocation of binding annual emission limits, but it would have been obvious that the new limit would pose difficulties.

The most recent EPA report (2024) [2] considers the likelihood of achieving the 42% reduction target and concluded that we will not achieve it:

> "When both ETS and LULUCF flexibilities are applied, the projections still indicate that Ireland will cumulatively exceed the ESR 2021-2030 emissions allocation by 17.7 Mt CO2eq even with implementation of policies and measures in the WAM scenario."

[2] Ireland's Greenhouse Gas Emissions Projections 2023 – 2050, EPA, May 2024

Ch. 9, p. 28
In discussing the GHG emissions baseline, and reductions achieved, the following strange sentence pops up:

> "Ireland's target is an emission reduction of 626 kt of CO2e by 2030 on an average baseline of 2016 to 2018."

This makes absolutely no sense in the context of the discussion in section 9.3.3 and would appear to have originated in the context of the LULUCF sector.

Ch. 9, p. 35
A number of the calculated percentages in the last column of Table 9.9 are incorrect. In any event using simple grid emission factors for calculating indirect GHG emissions impact of a new load is incorrect, as it does not allow for the reduction in percentage renewables on the grid when the new load is connected. This is discussed in detail later in the submission.

In view of the errors and irregularities identified above, I do not have confidence in the EIAR as a reliable unbiased description of the likely climate impacts of the proposed data centre. I submit that it does not form a reliable basis for the environmental impact assessment by Mayo County Council.

Misleading Narrative on Progress to National Targets

Sections 9.3.1 and 9.3.3 of the EIAR paint a rather positive picture of the prospects for achieving national GHG targets. This seeks to create the impression that all is under control, implying that accommodating a new data centre would be quite manageable. For a realistic unbiased assessment however it is better to rely upon the analysis conducted by the EPA. Based on its 2024 GHG projections the following is the objective status on Ireland's progress:

> **"Ireland's Climate Act Ambition**
> Ireland is not on track to meet the 51 per cent emissions reduction target (by 2030 compared to 2018) based on these projections which include most 2024 Climate Action Plan measures.
>
> **Carbon Budgets**
> The first two carbon budgets (2021-2030), which aim to support achievement of the 51 per cent emissions reduction goal, are projected to be exceeded by a significant margin of between 17 and 27 per cent.
>
> **Sectoral Emissions Ceilings**
> Sectoral emissions ceilings for 2025 and 2030 are projected to be exceeded in almost all cases, including Agriculture, Electricity, Industry and Transport.
>
> **EU Targets**
> Ireland will not meet its non-ETS EU targets of a 42 per cent emissions reduction

by 2030 in WAM even with both the ETS and LULUCF flexibilities."

(Ireland's Greenhouse Gas Emissions Projections 2023 – 2050, EPA, May 2024. Extract from Key Findings p.3, emphasis added)

If there is any doubt about the EPA analysis it would be that they are too optimistic, and have included measures which do not currently exist.

The European Environment Agency can also be relied upon to provide a no-nonsense impartial review of the progress of member states towards EU climate and energy targets. Information on Ireland's underperformance in climate and energy targets is further provided in the recent European Environment Agency Report "Trends and Projections in Europe, Report 11/2024".

In this report the performance of member states is considered under four headings:

- GHG Emissions
- Renewable Energy Share
- Primary Energy Consumption
- Final Energy Consumption

The report shows that Ireland is not on target for any of these four binding climate and energy targets. In fact Ireland has the worst performance in the EU, as no other state in the EU fails on all four of these binding targets.

The "existing baseline" therefore in which the EIA on climate should be conducted, is one in which the state is not on a trajectory to its climate and energy targets. Any sense of complacency that the state can cope with an additional load from the data centre of 48 MW must be dismissed as wishful thinking. This puts the onus on the applicant to demonstrate credible mitigation measures which are within its own control and which can be reliably implemented. The applicant has failed to demonstrate any such credible mitigation measures.

Invalid Mitigation Claims

False Assumption of Automatic Alignment

The various mitigation assumptions are spread throughout chapter 9 of the EIAR. In section 9.2.3 (National Legislation) the argument is made that the data centre will benefit from the projected decarbonisation of the grid and will therefore automatically align with national policy: :

> "The current project is in line with this strategy as the GHG emissions associated with electricity supplied to the project will reduce in line with national policy to obtain net zero by 2050."
> (Ch. 9, p.13)

Accordingly, as set out in Table 9.5 of the EIAR, the GHG emissions in 2028 are calculated based on a grid emission factor of 145 gCO2eq/kWh, which assumes that all targets in CAP24 will be on a favourable trajectory at that stage. One certainly hopes that this will be the case, but even in that scenario an automatic assumption that the data centre could claim this benefit is false. In essence it represents circular reasoning: we will meet our target because we will meet our target.

The reality is that for any new load connected to the grid additional dispatchable fossil fuel generation will be required, as additional renewable electricity generation cannot suddenly appear to match any arbitrary new load (i.e. wind/solar power is non-dispatchable). I discuss this aspect and the fallacy in this assumption in more detail further down in this submission.

EU Emissions Trading System (ETS)

There is extensive discussion in the EIAR on the EU ETS. With the numerous references to the ETS and its demonstrated progress in achieving targeted GHG reductions by 2030 the impression may have been created that this EU-wide mechanism would ensure reduction of the indirect grid emissions caused by the data centre, and of the direct emissions from the back-up generators. There is in fact no mechanism within the ETS to drive emission reductions in a member state to match any national targets which may apply, such as those in CAP24. Operators within the ETS are free to produce whatever GHG emissions they require, provided they pay for the allowances, which decrease annually to guarantee an EU-wide reduction. One can therefore not rely upon the ETS to mitigate GHG emissions in Ireland resulting from the proposed data centre. Section 9.5.3 states that the data centre will operate within the ETS. However, this just applies to the back-up generators, which generate direct GHG emissions. These emissions would be much lower than the indirect grid emissions.

Inadequate Embedded Mitigations

In section 9.6.2, a number of mitigation measures are listed. Most of these are energy efficiency measures embedded in the design, and have already been accounted for in the projected electricity load of 48MW. Consequently none of these measures could reduce this load, nor the resulting indirect GHG emissions.

Mention of the 50 KW Solar PV installation is indicative of the paucity of mitigation. It is a very small capacity (equivalent to about ten domestic roof-top systems) and would contribute around 0.01% of the annual electricity demand. This listing of rather insignificant mitigation measures is concluded with the sweeping statement:

> "These above identified measures will aid in reducing the impact to climate during the operational phase of the Proposed Development in line with the goals of the Climate Action Plan." (Ch. 9, p. 34)

Such a claim is evidently false and ridiculous.

False Claim for Mitigation by Renewable Gas

In section 9.7.2.2 of the EIAR where the GHG emissions are presented, there is also the assumption that renewable gas will be a future mitigation, which would lead to further decarbonisation of the grid. Unfortunately, there is at present no clear pathway with supporting measures to achieve the CAP24 target for biomethane by 2030. Existing biomethane production is only 1% of the 2030 target [3]. But even in the unlikely event that the target is achieved, it would not contribute to grid decarbonisation. The consultants who prepared the EIAR were clearly aware that national policy requires that renewables gas supplies will be reserved for heat loads which cannot be otherwise decarbonised, and will not be used for electricity generation. As stated in Ch.9, p.13:

> "This gas will be prioritised for difficult to abate emissions where alternatives are not readily available, such as high temperature heat in manufacturing."

This important national policy restriction appears to have been overlooked in section 9.7.2.2.

IEMA Guidance - Unsupported Mitigation Claims

Section 9.7.3 discusses additional mitigations in the context of IEMA guidance, which in principle could make an actual contribution to offsetting or reducing GHG emissions. However, these claimed mitigations do not stand up to analysis.

A detailed discussion is included on the energy efficiency of data centres compared with data storage by individual companies and enterprises (Ch.9, p. 36). It is credible that data centres will use less energy than existing enterprise systems for data storage. However, the benefit of this energy saving would not occur in Ireland. Data centres provide services for a worldwide market and any energy savings, and reductions in GHG emissions, would occur outside Ireland. The data centre efficiency argument therefore does not contribute in any way as an offset in the context of Ireland's energy and GHG policy and legally binding carbon budgets.

Furthermore, increasing AI applications which will be run in data centres entail greatly increased energy consumption, with no compensating reductions at the industry and enterprise level throughout the world.

The trivial PV panels are mentioned again in section 9.7.3, and the case is also made that the data centre will not start at full capacity, but will ramp up to 48MW over time. This is irrelevant, as once consent has been granted the data centre will be free to operate at maximum capacity, and as planning permissions generally do not set a limit on power consumption, the data centre could increase power consumption subject to availability of local grid capacity.

This brings us to the question of corporate power purchase agreements (CPPAs) for renewable electricity as a mitigation measure (Ch.9, p. 37). This is claimed as a mitigation

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[3] National Energy Projections 2023 Report, SEAI , p.51

measure in most data centre planning applications. In recent planning decisions on data centres in Ireland, planning authorities have adopted the approach of granting permission with a condition for a renewables power purchase agreement, presumably in the genuine belief that this will actually reduce or eliminate the GHG impact. This is not the case. Given the misinformation on CPPAs propagated by data centre developers and operators, and the absence of any comprehensive national guidance, the subject is discussed in detail below.

Corporate Power Purchase Agreement (CPPA)

Assessment of any potential benefit of a CPPA for renewable energy requires careful consideration. It is important to differentiate between existing and new large energy users. In general CPPAs entered into by existing large energy users have benefits, both financial and environmental. On the other hand CPPAs entered into for proposed new developments are of no environmental benefit, as the new developments just consume the renewables electricity that would otherwise have been used by the general economy.

In theory, there is the possibility for a new development to validly claim a neutral climate impact if the developer causes through a CPPA "additional" renewable energy to appear on the national grid matching its own power consumption, although I have not come across a single example of this in practice in Ireland.

There is little by way of national guidance on this subject. The government statement on the role of data centres [4] expresses a preference for data centre developments which can demonstrate "additionality" of their renewable energy use in Ireland, but does not expand upon how this would be assessed. The accepted definition of "additionality" is that it refers to energy supplied by a renewables project which would not have proceeded without the intervention of the data centre developer through a CPPA or otherwise.

The government roadmap for corporate power purchases [5] expands only marginally upon this matter. As a core principle it requires that corporate power procurement in Ireland:

> "Clearly delivers additional GHG emissions reduction and contributes to Ireland's 2030 climate and renewable energy targets." (p.10)

This could be taken to imply that not alone should the CPPA cover the expected energy consumption of the proposed data centre, but that it should also contribute to an emissions reduction, and towards the national renewable energy target of 80% by 2030.

The government roadmap does not elaborate on how any such claimed GHG reductions or contribution to national energy targets should be assessed. There is no national body or competent authority which can certify that a proposed CPPA results in emissions reductions. In the present planning system, the applicant is permitted to make the claim that a CPPA

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[4] Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy, July 2022
[5] Renewable Electricity Corporate Power Purchase Agreements Roadmap, DECC March 2022

constitutes a GHG offset, with no requirement for supporting evidence, and it is up to the competent planning authorities to assess the claim. This is obviously quite difficult to do as CPPAs are private commercial contracts. Given the paucity of national guidance on this matter, and the complexity of the issues, I include the following detailed discussion of CPPAs which I trust will assist Mayo County Council in assessing the claims of the applicant.

CPPAs for Existing Developments

There are clear potential benefits in corporate CPPAs for renewable electricity entered into by existing industrial and large energy user developments, including existing data centres. CPPAs can provide a valuable support for renewable energy projects, and also provide financial security for the corporation purchasing the power. In the case of a wind farm or solar PV farm the price paid in the CPPA will be higher than the guaranteed minimum price which would have been secured in an open auction, and if the CPPA is for a long-term contract this contributes to a stable investment return. The power purchaser also benefits in negotiating a fixed future price for its energy, i.e. price hedging. When gas prices are high, the purchaser is insulated from the increasing price of electricity. There are the additional financial advantages of an electricity supply decoupled from any carbon costs, and exemption from payment of the Electricity Tax which must be paid by non-domestic consumers.

For renewables developments which have already achieved planning consent, and which have a connection agreement to the grid, a CPPA with an existing large energy user would be beneficial in marginally accelerating development of these renewables projects. A CPPA represents a "bankable" asset which can provide the necessary security for release of funds from investors and banks to permit rapid construction of the windfarm or solar PV farm. There would however be some downsides with large scale adoption of CPPA by existing industry, as it could result in price increases for other consumers [6].

In conclusion, an existing large electricity user entering into a CPPA can be beneficial for the energy user, and potentially supportive of the renewables sector, but appropriate regulation may be required to ensure other consumers are protected.

CPPAs as Mitigation for New Developments

It is a widely held opinion, that large energy development such as data centres can mitigate their GHG impact by entering into CPPAs with generators of renewable electricity. However only in a very restricted set of circumstances could such a claim be validly made. In considering this aspect in more detail one needs to differentiate between three scenarios:

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[6] Renewable Electricity Corporate Power Purchase Agreements Roadmap, Govt of Ireland, March 2022

- CPPA for renewables already on the grid
- CPPA for already consented renewables projects not yet operational
- CPPA for additional renewable energy supply.

CPPA by New Development for Renewables Already on the Grid

Many companies enter power purchase agreements with electricity suppliers for 100% renewable electricity. This provides a useful degree of market support for renewables. Physically, the electricity on the Irish grid supplying these companies is currently around 40% renewable, so the 100% figure is purely notional. It can however be validly included in corporate GHG accounting, and demonstrates in a quantitative manner the company's support for the transition to renewables. Domestic consumers can also sign up for 100% renewable electricity, which again is a form of market support. Physically of course the supply is still only around 40% renewable.

Companies engaging in these CPPAs for existing renewables cannot justify or offset any additional GHG emissions on this basis, no more than a 100% renewable electricity domestic consumer could justify heading off on holidays, and claim that the increased aviation GHG emissions are matched by notional GHG saving in their electricity supply. Whatever renewables are present on the grid would be used in any event, and such a CPPA could not reduce national GHG emissions.

CPPA by New Development for Renewables Projects in Development Pipeline

By projects in the development pipeline I mean renewables projects which have obtained planning consent and a grid connection offer, but are not yet constructed or operational. These projects enter into a public auction process and if successful will be permitted to supply to the grid at a certain guaranteed price, and can then obtain finance to construct the wind farm or solar PV farm. Projects which do not initially succeed in the public auction, or which do not wish to participate in the auction, can also seek a CPPA, which would facilitate financing and construction of the project. This is environmentally beneficial in the short term as it accelerates development of the renewables project. However as the state will require absolutely all consented renewables projects, and much more, to reach the 80% renewables targets, it would be inevitable that these projects in the development pipeline would have been completed by 2030 anyway. The advantage of the CPPA route to market is that the renewables development can be operational marginally earlier.

For the proposed data centre the options for CPPA would either be for renewables projects that are already operating or those which have planning consents and grid connection contract, but which have not yet been constructed, or begun operation. In neither of these two cases would the contracted renewable energy represent "additional" renewables, as this supply would already have been on the grid, or would have inevitably appeared on the grid by 2030. This includes the various renewable energy projects in the vicinity of the

development site referenced in the EIAR. Consequently a claim that GHG emissions had been offset would be invalid.

CPPA for New Development with Additional Renewables Generation

In certain circumstances, where a large energy user initiates and develops a renewables project themselves, or where an existing consented renewables project is enabled which for various reasons would otherwise not have happened, a valid claim could potentially be made that GHG emissions have been mitigated. Such a renewables supply is termed "additional", i.e. would not have happened otherwise. For an existing large energy user a CPPA with such an additional renewables supply could be validly claimed to contribute towards Ireland's decarbonisation targets.

However for a new load on the grid such a CPPA, even with proven additionality, would not contribute to Ireland's decarbonisation targets, as the new load would simply consume the additional renewables supply. Given the time-scale required for a renewables project, typically 5 to 10 years, it would in fact be extremely difficult for a new large energy user to develop an additional renewables project from scratch to ensure that it is operational by the time the proposed development is operational. For the proposed data centre development there is no commitment in the submitted application to develop matching additional renewable energy supplies.

Moreover, as discussed further down in this submission, the rate of growth of renewables on the national grid is evidently insufficient to assign any GHG offset to a new large energy user. There would need to be an excess of renewable electricity beyond the national trajectory to 80% in 2030, before any spare renewables capacity could credibly be assigned as a GHG offset for new large energy users. If plans for significant offshore wind power are successful there may well be excess renewable electricity available for data centre projects. But it would be the mid 2030's at the earliest before this happy state of affairs could conceivably be achieved. It would be premature to grant permission for a data centre on the basis of potential supply of renewables which may occur a decade in the future.

Invalid GHG Calculations Based on Grid Emission Factors

The calculation of emissions in section 9.7.2.2 in the EIAR relies entirely on a projected reduction in grid emission factor to 2035, which assumes that all targets in CAP24 are achieved. Even if all targets in CAP24 are achieved, the assessment methodology is fundamentally flawed for two reasons.

Firstly, if the projected declining grid emission factors are accepted as the basis for assessment, then any and all proposed future developments connected to the electricity grid could claim the same benefit without limit and claim to be aligned with national objectives. Secondly, basing GHG calculations for a new development on a grid emission factor is in itself inherently flawed, as it fails to take account of the actual consequences of

connection of a new load to the grid in terms of increased fossil fuel content and corresponding reduced percentage of renewables.

We do not need to get down to the nitty gritty of grid emission factors to see that basing the GHG assessment on a projected national declining grid emission factor is completely invalid. An assessment methodology must be capable of differentiating between a project which has a climate impact and one which has no climate impact. If the methodology cannot make this distinction it is of absolutely no use. The problem with the "decarbonising grid " claim is that it can be made for absolutely any large energy user connected to the national grid without any limit on power consumption, i.e. all such projects could be stated to have declining GHG emissions over time. All projects would then be assessed as in compliance with the national GHG reduction trajectory, and having negligible or no climate impact, which would be nonsense.

If a data centre drawing 48MW from the grid can claim the benefit of a projected low emission factor in 2028, what about a 480MW development? At what stage in power demand would the assumption of low emission factor break down? The flaw in such an assessment methodology is that it does not take account of the actual consequences of connecting a new load to the electricity grid, and the fact that any new load connected to the grid changes the overall grid emission factor.

The physical reality is that once a 48MW continuous load is connected to the grid there will have to be a corresponding increase in dispatchable fossil fuel generation, as there is no mechanism for a renewables supply to instantly respond to an additional load. The best case resulting GHG emissions would be if the additional generation was from an efficient CCGT power plant running on natural gas. For the proposed development this would result in GHG emissions of around 170,000 [7] tonnes per year in 2028 which is nearly three times the value calculated in the EIAR.

One could of course also calculate emissions based on the grid emission factor, but proper allowance would need to be made for the impact of the load on the grid characteristics. A new load connected to the grid will immediately reduce the percentage renewables on the grid, and increase the emission factor. The reduction in renewables percentage and the increase in the emission factors may be numerically quite small, but when account is taken of the total grid demand, the resulting increase in GHG emissions would be significant. For example, according to SEAI the grid demand is projected to be 45 TWh in 2030, and according to the EIAR the grid emission factor is expected to be 100, which would correspond to close to 80% renewable electricity. Connecting the proposed data centre load of 421 GWh would decrease the renewable component by 0.7 percentage points, and increase the grid emission factor to 103. If this increased emission factor is accounted for, then the effect of connecting the 421 GWh load to the grid can be calculated as a notional emission of around 42000 t/yr (as per the EIAR), plus an additional approximately 135,000 t/yr from the total load on the grid due to the elevated emissions factor. The overall physical impact would be the sum of these two: 42,000 + 135,000 = 177,000 t/year, which

[7] CCGT efficiency 55%, grid losses 9%, EF gas 204t/GWh : emissions = 421 GWh/0.55/0.91 x 204 = 171, 596t/yr

works out to be much the same as assuming that additional CCGT generation is required to cover the load.

It is relevant to point out that the large electricity demand projected by Eirgrid in 2030 includes allowance only for data centres who already have connection contracts as of 2022 when Eirgrid produced its capacity statement [8]. Therefore it could not be argued that the proposed data centre has been accounted for in these projections.

Energy Efficiency Directive (EED)

The EIAR mentioned the EED only in the context of the built environment (Ch.9, p. 12) and failed to consider the effect of the proposed development on final energy consumption in the state. The recast Energy Efficiency Directive (EU 2023/1791) addresses a key weakness in previous EU energy policy. While the previous EED mandated improvements in energy efficiency throughout the EU economy, these improvements which should have led to reductions in GHG emissions and increased renewable energy share were undone in a number of member states by a continued rise in energy consumption. In Ireland, final energy consumption increased by slightly over 10% over the past decade[9]. This represented almost 70% of the entire increase in renewable energy deployed in Ireland over this period, with the result that the decarbonisation effect of the additional renewables was greatly reduced.

The recast EED sets limits on energy consumption for 2030. This will ensure that increases in renewable energy supply will not be simply undone by increased energy consumption. This will avoid the current "three steps forward two steps back" which has characterised Ireland's decarbonisation efforts over the past decade. The EED is incorporated as a key element in CAP 24, which sets out a clear commitment to reduce energy consumption:

> "Ireland aims to achieve a reduction in final energy consumption against anticipated 2030 levels, in line with the EU Energy Efficiency Directive (EED)." (CAP24, p. 64)

Envisaged EED measures in CAP 24 include control of growth in energy consumption by data centres with the aim of:

> "Managing energy demand in the commercial sector, with a potential focus on data centre power demand." (CAP24, p. 64)

Ireland has committed to a reduction target of 12.6% in final energy consumption relative to 2022, to be achieved by 2030 [10]. For existing industry, equipment and technologies, such a reduction should be achievable through modest improvements in energy efficiency and gradual replacement of older retired assets with much more efficient technologies.

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[8] Ireland Capacity Outlook 2022 – 2031, EirGrid/SONI October 2022

[9] Energy in Ireland 2024 Report, SEAI, December 2024, based on data in Table 5.1, p. 74

[10] Ireland's integrated National Energy and Climate Plan 2021-2030, Government of Ireland, July 2024

Consequently the EED does not present an insurmountable compliance burden for the existing economy.

However, the EED does have important implications for the relatively new data sector. This sector is driving increases in national final energy consumption, with no compensating reductions (unless a new data centre results in retirement of an old inefficient data centre in Ireland). The energy demand of the proposed development is 421 GWh (EIAR Ch. 9, p. 35), which would represent an increase in national final energy consumption of 1.4%. The proposed development would therefore hinder the national efforts to reduce final energy consumption.

The EIAR argues that new data centres will result in an energy saving (Ch. 9, p. 36) due to displacement of more energy intensive data storage. However this saving would inevitably be almost entirely outside of Ireland and would be of no benefit in achieving our EU EED target. Claims in the EIAR of offset of impact through CPPAs for renewable energy are grossly misleading, as discussed in detail earlier. However, even if a CPPA for genuine additional renewable energy could be demonstrated, the increase in final energy consumption would still occur, as the EED applies to total energy consumption renewable plus non-renewable.

Unsustainable Growth in Data Centre Power Demand

As has been widely reported in the media, it is clear that there has been very rapid growth in power demand by data centres in Ireland. CSO [11]data shows that data centres accounted for 20.7% of the total power demand in the state in 2023. Each new data centre increases this percentage. The proposed data centre development while relatively small in scale, would add 1.1% percentage points bringing the data centre sectoral share to 21.8% of national power demand. EirGrid projections[12] are that data centres will account for 30% of electricity consumption by 2032. This is based on existing connection contracts only. New data centres would add to this percentage. Such a large and rapidly growing share is unsustainable for the following three reasons:

Impact on the Grid. The growth in data centre power demand is placing strain on the national grid, and is crowding out available power for other enterprises which would have much greater employment potential than data centres. The additional loading is also impeding progress towards our 2030 target of 80% renewable electricity. If one excludes the data centre sector, it is evident from the CSO data that the state would already enjoy 51% renewable electricity on the grid, rather than the present situation where it is hovering around 40%.

[11] Data Centres Metered Electricity Consumption 2023, CSO Statistical Publication July 2024

[12] Generation Capacity Statement 2023–2032, Eirgrid, January 2024

Data Centre Demand Outpaces Renewables Deployment. The rate of growth in data centre power demand has greatly outpaced the growth in renewable electricity on the grid. Recent SEAI data [13] shows that renewable electricity supply has grown by only 2 TWh over the five years from 2019 to 2023. CSO figures for the same period show that data centre power consumption increased by 3.8 TWh. It is clear that growth in renewable electricity supply cannot compensate for the much greater growth in data centre power demand. This further undermines any claim that a renewables CPPA could mitigate GHG emissions from the proposed data centre.

GHG Emissions: Based on latest CSO data for 2023, and a grid emission factor used in the EIAR the GHG emissions from the Irish data centre sector were 1.8 million tonnes per year. The proposed development would increase these GHG emissions by 170,000 tonnes per year. Because growth in renewable electricity supply is much less than the growth in demand from the data centre sector, any new data centre will inevitably cause an increase in matching fossil fuel generation with resulting increased GHG emissions. Over the past two years this GHG impact has been masked by large net electricity imports from the UK, which are counted as zero carbon in Ireland's GHG accounting, but are accounted in the UK. This contributed to a significant reduction in accounted emissions from the electricity sector in Ireland of 2.2 million tonnes/year between 2022 and 2023(Ch. 9, p.28). However, such large reliance on imported electricity is not sustainable, and depending on electricity price differential these net imports could suddenly cease, which would cause emissions from the Irish Electricity sector to suddenly increase, i.e. these accounted reductions are outside of national control and are subject to the vagaries of the electricity markets.

Conclusion

In view of the above significant concerns on climate impact, I ask Mayo County Council to refuse planning permission for this proposed data centre development.

Mise le meas,

Dr. Colin Doyle

[13] Mid-Year Review of Ireland's Energy and Related Emissions in 2024, SEAI, September 2024

APPENDIX 3: PLANNERS REPORT AT FI STAGE, MAYO COUNTY COUNCIL

To: Brendan Munnelly SEP Development Management Section MCC

From: Barry Freeman EP Development Management MCC

DATE: 18/10/24

Planning Reference Number: 24/60708

Recommendation: Further Information Request

Development Description: The construction of a single data centre building located to the north of the site, with an overall gross floor area of c. 29,076 sq.m across two levels and an overall maximum height of c. 22.764m at parapet level. The data centre building includes data halls and associated electrical and mechanical plant rooms (c. 23,908 sq.m), an administrative and staff services block (c. 5,052 sq.m) and circulation and stairs (c. 116 sq.m). 2 no. external terraces are proposed to the east of the building (c. 309 sq.m) and an external generator yard to the south of the building (c. 5,205 sq.m) accommodating 25. no. backup / dispatchable generators and associated flues (to a height of c. 21.164m) within an enclosed compound. The construction of a sprinkler tank and pump house to the northeast of the site, the sprinkler tank is an overall height of c. 7.2 m and the pump house is a single storey building with an overall height of c. 4.15m and area GFA of c. 40.23 sq.m. The construction of an entrance hut at the main access to the south of the site, the hut is an overall height of c. 3.225m and area GFA of c. 11.6 sq.m. Construction of 2 no. site access points from the south and internal road network and circulation areas, footpaths, cyclist infrastructure, the provision of 56 no. car parking spaces (including 12 EV charging spaces and 7 disabled spaces, 3 of them EV), 20 no. cycle parking spaces, hard and soft landscaping and planting, site lighting, PV panels and plant at roof level, foul water connection connecting to existing WWTP in Killala Business Park, boundary treatments, green walls and all associated and ancillary works including underground foul and storm water drainage network and utility cables and all ancillary works and services. An EPA-Industrial Emissions Directive (IE) licence will be applied for to facilitate the operation of the proposed development. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) will be submitted to the Planning Authority with the planning application and the EIAR and NIS will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority.

Location: Mullafarry and Tawnaghmore Upper, Killala, Co. Mayo

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1.0 Site Description:

The proposed development site, comprising 10.5 hectaares, is located in a semi-rural setting, abounding the existing Killala Business Park. The site, comprising mainly scrub land rises from the south to north. The local road L-1111 (Mullafarry road) forms much of the site's southern boundary, as does the curtilage of Ballysakeery Glebe house.

2.0 Specific aspects of the development proposal:

i. The construction of a single data centre building located to the north of the site, with an overall gross floor area of c. 29,076 sq.m across two levels and an overall maximum height of c. 22.764m at parapet level.

ii. The data centre building includes data halls and associated electrical and mechanical plant rooms (c. 23,908 sq.m), an administrative and staff services block (c. 5,052 sq.m) and circulation and stairs (c. 116 sq.m).

iii. 2 no. external terraces are proposed to the east of the building (c. 309 sq.m) and an external generator yard to the south of the building (c. 5,205 sq.m) accommodating 25. no. backup / dispatchable generators and associated flues (to a height of c. 21.164m) within an enclosed compound.

iv. The construction of a sprinkler tank and pump house to the northeast of the site, the sprinkler tank is an overall height of c. 7.2 m and the pump house is a single storey building with an overall height of c. 4.15m and area GFA of c. 40.23 sq.m.

v. The construction of an entrance hut at the main access to the south of the site, the hut is an overall height of c. 3.225m and area GFA of c. 11.6 sq.m.

vi. Construction of 2 no. site access points from the south and internal road network and circulation areas, footpaths, cyclist infrastructure, the provision of 56 no. car parking spaces (including 12 EV charging spaces and 7 disabled spaces, 3 of them EV), 20 no. cycle parking spaces, hard and soft landscaping and planting, site lighting, PV panels and plant at roof level, foul water connection connecting to existing WWTP in Killala Business Park, boundary treatments, green walls and all associated and ancillary works including underground foul and storm water drainage network and utility cables and all ancillary works and services.

3.0 Site Notice(s)

Erected and Legible on site (see photos below) as per site visit conducted on January 13th 2025.

4.0 Pre-Planning

Yes - Meeting occurred September 26th 2024.

5.0 Referrals/ Consultation with internal and external departments/bodies

Consultant's Name	Status	Required Date	Requested Date	Returned Date	Notifications
AREA ENGINEER BALLINA	REQUESTED	16/12/2024	02/12/2024		
ENVIRONMENT	REQUESTED	16/12/2024	02/12/2024		
ENVIRONMENT - FLOOD RISK	RETURNED	16/12/2024	02/12/2024	11/12/2024	
Water Services	REQUESTED	16/12/2024	02/12/2024		
SIOBHAIN SEXTON	REQUESTED	16/12/2024	02/12/2024		
ENVIRONMENT - AA/NIS	REQUESTED	16/12/2024	02/12/2024		
DAU (ARCHAEOLOGY)	External Request	14/01/2025	20/12/2024		
An Taisce	External Request	12/12/2024	02/12/2024		
DAU (NATURAL HERITAGE)	External Request	12/12/2024	02/12/2024		
UISCE ÉIREANN	External Request	03/01/2025	11/12/2024		
ARCHAEOLOGIST Gerry Walsh	RETURNED	03/01/2025	20/12/2024	18/12/2024	

Environment MCC (Flood Risk) – No further assessment required

Archaeology MCC – Has requested that pre-development testing be undertaken prior to a planning decision being made. Further Information will be sought in this regard.

Area Engineer MCC – Raises a number of queries/issues as follows:

- Why isn't the data centre located within Killala Business Park
- Why can't existing private access roads to other developments within the site's vicinity be used?
- What is the source of the HVO fuel for the on-site generators?
- The proposed PV installation is limited
- What is the source of the fill material required
- No carpark lighting layout and design submitted
- A setback is required along site road frontage
- The durability of the green wall proposal is questioned
- Can district heating be utilised?
- Could the building be located on a lower part of the site and power cables ran underground?
- Are all other consents in place, ie that of the Industrial emissions license with the EPA and that of the 110kv substation.

Some of these queries will be formalised in a further information request.

6.0 Planning History

Although there is no planning history on the application site itself, there is significant recent planning history on lands in the site's immediate surrounds, namely, and of particular relevance are:

- **16/694 (as extended under 16/6940 – This permission now expires 15th June 2027)** – Permission was granted by MCC for MODIFICATIONS TO EXISTING 12,000SQM VACANT WAREHOUSE BUILDING TO ACCOMMODATE PROPOSED DATA CENTRE WITH OFFICES, INCLUDING THE REMOVAL OF THE EXISTING ROOF AND INSTALLATION OF A NEW INSULATED ROOF AND ASSOCIATED EXTRACT GRILLES, OVER CLADDING OF THE EXISTING BLOCK WALLS AND CONCRETE FRAME WITH INSULATED PANELS, FASCIA ELEMENTS AND NEW FENESTRATIONS, PARTIAL REPLACEMENT OF THE EXISTING INTERNAL FLOOR TO THE OFFICE AREAS AS PROPOSED. THE PROPOSAL ALSO SEEKS PERMISSION FOR THE CONSTRUCTION OF A NEW 13,200SQM PURPOSE BUILT DATA CENTRE LOCATED TO THE NORTH OF THE EXISTING WAREHOUSE TO A VARYING HEIGHT OF 7-12M AND NETWORKING BUILDING 725SQM LOCATED TO THE EAST TO A HEIGHT OF 6.5M. 1 NO. GENERATOR COMPOUND (C.1895 SQM) HOUSING 13 NO. GENERATORS AND INCLUDING 4 NO. FLUES TO HEIGHT OF 15M AND 1 NO. TRANSFORMER COMPOUND (C.623SQM) ALSO INCLUDED ARE ANCILLARY SITE WORKS FOR CONNECTION TO EXISTING INFRASTRUCTURAL SERVICES, AS WELL AS SECURITY ENTRANCE GATES, MINI PILLAR, FENCING, LANDSCAPING, ROAD AND SECURITY LIGHTING, PERIMETER SERVICE ROADS TO THE BUILDINGS, 27 NO. PARKING SPACES (INCLUDING 3 NO. UNIVERSAL ACCESSIBLE SPACES), BICYCLE PARKING AND SMOKING SHELTER
- **23/60266** – HYDROGEN PLANT AND ENERGY CENTRE (northeast of the site) – Currently at Further Information stage.
- **23/60134** – 50 MEGAWATT (MW) ELECTRICITY GENERATION STATION (north of site). This was granted permission by M.C.C in February 2024 subject to conditions.
- **22/562** – EXTENSION TO EXISTING CABLE LANDING STATION and E.S.B substation (east of site). This was granted permission by M.C.C. in September 2022.
- **18/362** – PERMISSION FOR 3 NO. BESPOKE ELECTRICAL PLANT ROOM CONTAINERS AND 1 NO. CHILLER UNIT AND RETENTION PERMISSION FOR STORAGE (east of site). This was granted permission in September 2019 subject to conditions.
- **17/619** – 5 NO. TURBINE WIND FARM (north of site). This was granted permission in February 2018 subject to conditions.
- **13/158** – ELECTRICAL TRANSFORMER STATION (northeast of site). This was granted permission in September 2013 subject to conditions.

7.0 Planning application documentation submitted as follows:

Planning drawings covering all aspects of the proposed development namely

- Architectural Design Statement
- Architectural Drawings,
- Engineering Planning Report,
- Outline Construction Management Plan,
- Traffic and Transport Assessment,

- Mobility Management Plan,
- Engineering Drawings,
- Commercial Energy Statement,
- Landscape Report & Outline Landscape Specification,
- Landscape Drawings,
- Environmental Impact Assessment Report,
- Natura Impact Statement,
- Water Framework Directive (WFD) Screening Assessment,

7.1 Environmental Reports submitted:

An Environmental Impact Assessment Report (EIAR) has been submitted as part of the application. Volume 2 of the Environmental Impact Assessment Report (EIAR) deals with following chapters:

- CHAPTER 1: INTRODUCTION
- CHAPTER 2: DESCRIPTION OF DEVELOPMENT
- CHAPTER 3: PLANNING & ALTERNATIVERS
- CHAPTER 4: HUMAN HEALTH
- CHAPTER 5: LAND, SOILS, GEOLOGY & HYDROGEOLOGY
- CHAPTER 6: HYDROLOGY
- CHAPTER 7: BIODIVERSITY
- CHAPTER 8: AIR QUALITY
- CHAPTER 9: CLIMATE
- CHAPTER 10: NOISE & VIBRATION
- CHAPTER 11: LANDSCAPE AND VISUAL IMPACT
- CHAPTER 12: ARCHAEOLOGY, ARCHITECTURAL & CULTURAL HERITAGE
- CHAPTER 13: MATERIAL ASSETS - TRAFFIC AND TRANSPORTATION
- CHAPTER 14: MATERIAL ASSETS – UTILITIES
- CHAPTER 15: MATERIAL ASSETS – WASTE
- CHAPTER 16: INTERACTIONS
- APPENDICES ETC

A Natura Impact Statement (N.I.S) has also been submitted.

The Planning Authority will conduct a formal review of both the EIAR and NIS upon receipt of any requested further information, and prior to the making of any final decision.

8.0 3rd Party Submission received:

5 no . submissions from non statutory 3rd parties, which raise the following issues/concerns:

Greenhouse gas emission reductions:

- Given the power usage of data centres, it is submitted by all that the proposal is not sufficiently powered by on or off-site renewables, as per the requirements of Irelands Climate Action Plan and commitments under the 2015 Paris Agreement.
- The proposal ignores Ireland's obligations under the Energy Efficiency Directive (EED) which requires Ireland to reduce both its primary and final energy consumption by 2030, and is contrary to Ireland's (net-zero" trajectory. Mitigation measures proposed within the EIAR are insufficient.
- Ireland is not on-track to meet its national and E.U climate targets, especially given the proposal to use back up HVO generators as part of the proposal.
- Corporate Power Purchase Agreements (CPPA), which Are often offered as mitigation for Data Centre developments, are of no environmental benefit for new date centre developments.
- Offsetting Greenhouse gas emissions through carbon credits ignores the basic fact that these emissions will still occur.
- Data Centres must provide sufficient energy storage (eg battery or renewable fuel) rather than fossi fuel based emergency storage, as is proposed. It is submitted that the on-site solar installation prosed will provide only 0.1% of the plants power needs. This will lead to an increase in Ireland's greenhouse gas emissions.

Perceived errors in application/EIAR and lack of transparency:

- The calculations offered for Greenhouse Gas emissions in the EIAR are flawed.
- Perceived factual errors are pointed out in the EIAR.
- The transparency of aspects of the planning application is questionable, especially with regard to the company in whose name the application is being made

Growth in Data centres in Ireland and need for same:

- There has been an unsustainable growth in data centre development in Ireland, which goes against Irelands targets for power usage from renewable energy sources, due to their large energy demands.
- The Cost/Benefit of Data Centres is questionable with one point being made that much of the data being stored is redundant.

District Heating and use of heat generated:

- Heat generated from Data Centres should be utilised for district heating systems, or in the absence of such systems, existing heat pump technology should be used to avoid the waste of generated heat energy from the date centre.
- Blackouts as a result of pressure from data centres is a real risk.

Lack of Community engagement:

- While developments in the tech sector outside Dublin such as this are welcomed, it is submitted that better consultation with the local community should have occurred.

Planning History of area:

- The Planning History of the site's wider area provided within application documents is inaccurate, notably that of another Data Centre permitted in the site's immediate surrounds sunder reference number 16/694.

Impact of historical house:

- It is submitted that the development will impact adversely on a house of historical and architectural importance that is in close proximity to the site.

9.0 Planners Assessment:

The following chapter sets out the predominant issues of note under which this planning application is being, and will be, assessed.

9.1 MCDP (Mayo County Development Plan) 2022-2028 Volume 1

While many sections of the MCDP directly and indirectly apply in the assessment of this application, the following are considered to be of most significance:

Chapter 4 – Economic Development
Chapter 11 – Climate Action and Renewable Energy

9.2 MCDP 2022-2028 Volume 2 – Development Management Standards

Of particular relevance are the following sections:
Section 5.0 – Enterprise & Employment
Section 7.0 – Roads and Parking
Section 8.0 – Infrastructure, Service and Safety
Section 11.0 – Built Environment
Section 12.0 – Natural Environment
Section 13.0 – Guidance for Planning Applications and Assessments Required for Certain Developments

9.3 Specifics of the Proposed Development

9.3.1 Location Dependency

The application makes the case for the chosen location based primarily on a number of existing developments, planned or existing in the area, namely the transatlantic landing station, renewable energy developments such as a Hydrogen Energy Plant and Wind Farm developments. No details of any existing agreements with the providers of these projects have been provided as part of the information submitted. In order to avoid permitting a development that is purely speculative in nature, further information will be sought in this regard.

9.3.2 Scale of Development/Visual Impact

The development proposed is extensive in scale, with a stated planned floor area across all components of 29,076m². The buildings height is a maximum of 22.7m. A "green walls"

approach is incorporated ion the façade design. Further Information will be sought in relation to relevant comparable examples of where this green wall approach has been successfully carried out. The site rises from the serving local road (L-1111) to the south, in a northern direction to where the main building will be located on site. While a landscaping plan has been submitted, along with a "green walls" approach to the building's façade as mentioned, no justification for the building's overall scale and height has been submitted. Further Information will be sought in this regard.

9.3.3 Architectural & Historical Heritage:

A house of historical importance is located immediately south of the application site, namely Ballysakeery Glebe House, which is recorded on the National Inventory of Architectural Heritage (NIAH Ref. 31302208). A report has not been received from the MCC Conservation Architect. The applicant has offered to contribute to the restoration of the property for community use.

9.4.4 Infrastructure requirements

Energy Usage – A Commercial Energy Statement has been submitted as part of the application, which aims to address the energy performance, and sustainability of construction of the proposed datacentre. The document lacks detailed analysis of the perceived lack, or otherwise, of on-site or off-site renewables that could assist in powering the proposed development. The Commission for Regulation of Utilities (C.R.U) requires that "grid connections" which require that any developer provides on-site dispatchable generation, and/or storage, equivalent to or greater than its demand. Further Information will be sought in relation to this. An additional 110kv substation (subject to planning permission being granted) will be developed to the east of the datacentre to help power the development. A low/zero carbon technologies feasibility study has been carried out within this document that concludes that heat pump chillers and Solar P.V are the most suitable renewable energy technologies for the proposed development. will be addressed via a further information request. The document lacks detailed analysis of the lack, perceived or otherwise, of on-site or off-site renewables that could better assist in powering the proposed development. It is proposed to provide a number of biofuel powered generators as a back-up power source on site.

Piped Water Services – Existing wastewater treatment plant operated by Uisce Eireann to the east of the application site. Existing public water infrastructure is in place serving the site. It is proposed to divert an existing water main to serve the development. In addition, a closed loop system for cooling is proposed. Attenuation ponds, permeable surfaces and other SUDS measures are proposed to manage surface water generation.

Access/Egress and Parking – Access/Egress is proposed to/from the local; road L-1111 (Mullafarry road) that runs along the south of the site. 56 no. car parking places are proposed on site, along with cycle parking provision.

10.0 Environmental Impact Assessment Report (EIAR)

The EIAR report examines each environmental factor in a separate chapter. These EIAR chapters have been prepared by suitably qualified expert(s) and have considered the construction and operational phases of the Proposed Development under the following headings:

- Assessment Methodology;
- Receiving Environment;
- Characteristics of the Proposed Development;
- Potential Impacts of the Proposed Development;
- Mitigation Measures;
- Monitoring or Reinstatement Measures;
- Residual Effects of the Proposed Development; and
- Cumulative Impacts of the Proposed Development.

The EIAR is generally considered adequate. Any perceived gaps in information or concerns will be addressed via a further information request. A report will be prepared in relation to the EIAR following the receipt of further information.

11.0 Appropriate Assessment

A Natura Impact Statement (NIS) has been submitted as part of this application. A report will be prepared in relation to same following the receipt of further information.

12.0 Recommendation

Having reviewed the proposed details contained in the Application Documentation, EIAR & NIS, the following further information is required to further assess and consider this proposal:

1 The developer is required to employ a suitably qualified archaeologist to undertake a programme of Archaeological Pre-development Testing across the proposed development site. The Testing should be carried out under licence from the National Monuments Section, Department of Housing, Local Government and Heritage.

2 Should archaeological material be uncovered during the course of the testing, the archaeologist shall 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 National Monuments Section of 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.

3 The Planning Authority and the National Monuments Section of the Department of Housing, Local Government and Heritage shall be furnished with a report describing the results of the testing.

4 The Planning Authority has concerns about the lack of energy from renewable sources, as an overall percentage of required power, that will be generated/utilised in the operation and running of the Data Centre. The power generated from the proposed P.V installation appears to represent an insignificant contribution to the sustainable operation of the plant, and, alongside the fuel powered back-up generators does not represent best practice. In this regard, going forward, can the applicant demonstrate how it will be possible for the development to comply with the Commission for Regulation of Utilities (C.R.U) requirement regarding the "grid connections" which require that any developer provides on site -dispatchable generation, and/or storage, equivalent to or greater than its demand.

5 Section 4.0 (Planning History) of the accompanying Planning Report submitted does not refer to the existing planning permission in place on a nearby site (MCC Planning reference 16/694 as extended under planning reference 16/6940) for another Data Centre. Please justify the need for another development of this nature at this specific location.

6 Please provide justification for the scale and more significantly, the height of the proposed building, which at 22m, may result in a development that is incongruous with the surrounding landscape. As part of this please provide technical justification as to why the main building cannot be located on a lower part of the site.

7 The Planning Authority notes the "Green Walls" approach that has ben incorporated into the building's design.

(i) Please address any concerns that the Planning Authority has in relation to fire risk from non-maintained "green walls".

(ii) Please provide a relevant current example where the green walls concept has been successfully implemented in a similar environment/climate as prevails at the application site's location.

8 Regardless of the absence of any District Heating System in the vicinity of the development site, the Planning Authority is concerned about the lack of suggested use(s) for the heat that will be generated by the development, which via existing technology, could be used to heat separate industrial operations, both planed and existing, within Killala Business Park. Please address the concerns of the Planning Authority in this regard.

9 The Planning Authority notes the references made in the documentation submitted, to the nearby transatlantic cable landing station, and the potential for the proposed development to take advantage of this proximity. Please provide the Planning Authority with any details of any agreements/discussions that exist, or have taken place, in this regard.

10 In relation to the proposed access/egress to/ from the local road to the south of the site, please submit the following:

(i) Please outline why the site cannot be accessed from the north via Killala Business Park.

(ii) In the event that access to the site via Killala Business Park is not possible, please submit a revised site layout plan indicating a sufficient roadside setback so that site visibility in accordance with Section 7.6 of Volume 2 of the Mayo County Development Plan 2022-2028 (i.e. measured to the near road edge) can be demonstrated.

Barry Freeman

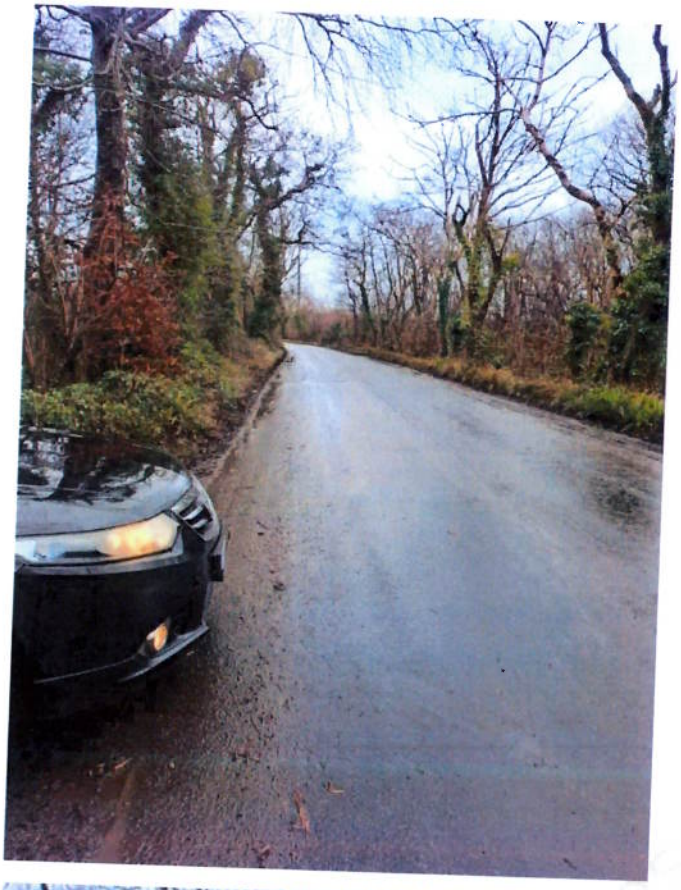
Executive Planner

Brendan Munnelly

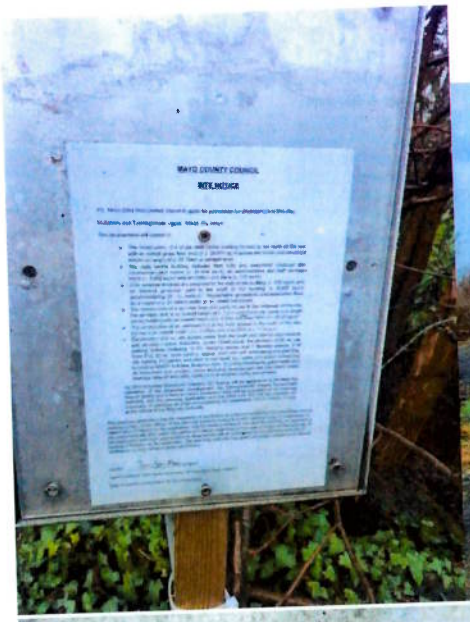
Senior Executive Planner



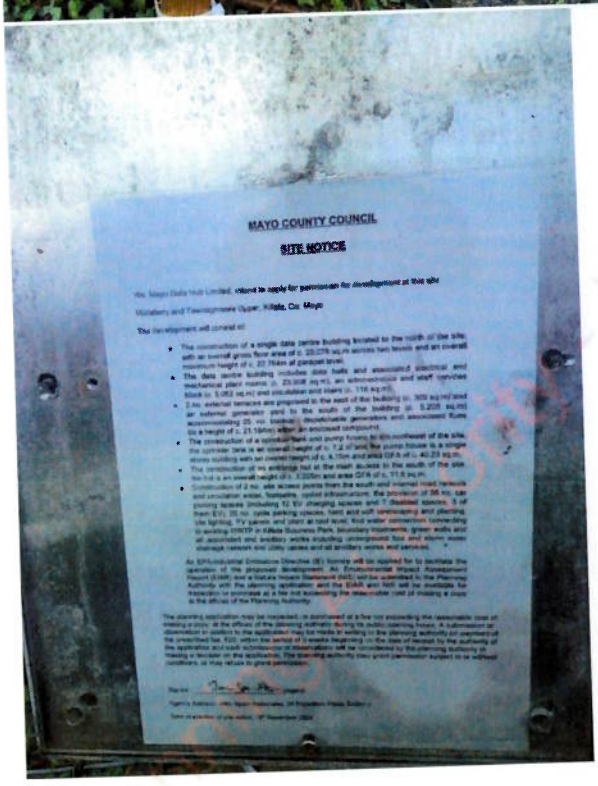







MAYO COUNTY COUNCIL
SITE NOTICE




MAYO COUNTY COUNCIL
SITE NOTICE

APPENDIX 4: PLANNERS REPORT AT DECISION STAGE, MAYO CO(ITY COUNCIL

To: Brendan Munnelly SEP Development Management Section MCC

From: Barry Freeman EP Development Management MCC

DATE: 16/April/2025

Planning Reference Number: 24/60708

Recommendation: Grant Permission

Development Description: The construction of a single data centre building located to the north of the site, with an overall gross floor area of c. 29,076 sq.m across two levels and an overall maximum height of c. 22.764m at parapet level. The data centre building includes data halls and associated electrical and mechanical plant rooms (c. 23,908 sq.m), an administrative and staff services block (c. 5,052 sq.m) and circulation and stairs (c. 116 sq.m). 2 no. external terraces are proposed to the east of the building (c. 309 sq.m) and an external generator yard to the south of the building (c. 5,205 sq.m) accommodating 25. no. backup / dispatchable generators and associated flues (to a height of c. 21.164m) within an enclosed compound. The construction of a sprinkler tank and pump house to the northeast of the site, the sprinkler tank is an overall height of c. 7.2 m and the pump house is a single storey building with an overall height of c. 4.15m and area GFA of c. 40.23 sq.m. The construction of an entrance hut at the main access to the south of the site, the hut is an overall height of c. 3.225m and area GFA of c. 11.6 sq.m. Construction of 2 no. site access points from the south and internal road network and circulation areas, footpaths, cyclist infrastructure, the provision of 56 no. car parking spaces (including 12 EV charging spaces and 7 disabled spaces, 3 of them EV), 20 no. cycle parking spaces, hard and soft landscaping and planting, site lighting, PV panels and plant at roof level, foul water connection connecting to existing WWTP in Killala Business Park, boundary treatments, green walls and all associated and ancillary works including underground foul and storm water drainage network and utility cables and all ancillary works and services. An EPA-Industrial Emissions Directive (IE) licence will be applied for to facilitate the operation of the proposed development. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) will be submitted to the Planning Authority with the planning application and the EIAR and NIS will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority.

Location: Mullafarry and Tawnaghmore Upper, Killala, Co. Mayo

1.0 Site Description:

The proposed development site, comprising 10.5 hectaares, is located in a semi-rural setting, abounding the existing Killala Business Park. The site, comprising mainly scrub land rises from the south to north. The local road L-1111 (Mullafarry road) forms much of the site's southern boundary, as does the curtilage of Ballysakeery Glebe house and rectory, Protected Structure 0272.

2.0 Specific aspects of the development proposal:

i. The construction of a single data centre building located to the north of the site, with an overall gross floor area of c. 29,076 sq.m across two levels and an overall maximum height of c. 22.764m at parapet level.

ii. The data centre building includes data halls and associated electrical and mechanical plant rooms (c. 23,908 sq.m), an administrative and staff services block (c. 5,052 sq.m) and circulation and stairs (c. 116 sq.m).

iii. 2 no. external terraces are proposed to the east of the building (c. 309 sq.m) and an external generator yard to the south of the building (c. 5,205 sq.m) accommodating 25. no. backup / dispatchable generators and associated flues (to a height of c. 21.164m) within an enclosed compound.

iv. The construction of a sprinkler tank and pump house to the northeast of the site, the sprinkler tank is an overall height of c. 7.2 m and the pump house is a single storey building with an overall height of c. 4.15m and area GFA of c. 40.23 sq.m.

v. The construction of an entrance hut at the main access to the south of the site, the hut is an overall height of c. 3.225m and area GFA of c. 11.6 sq.m.

vi. Construction of 2 no. site access points from the south and internal road network and circulation areas, footpaths, cyclist infrastructure, the provision of 56 no. car parking spaces (including 12 EV charging spaces and 7 disabled spaces, 3 of them EV), 20 no. cycle parking spaces, hard and soft landscaping and planting, site lighting, PV panels and plant at roof level, foul water connection connecting to existing WWTP in Killala Business Park, boundary treatments, green walls and all associated and ancillary works including underground foul and storm water drainage network and utility cables and all ancillary works and services.

3.0 Site Notice(s)

Erected and Legible on site (see photos below) as per site visit conducted on January 13th 2025.

4.0 Pre-Planning

Yes - Meeting occurred September 26th 2024.

5.0 Referrals/ Consultation with internal and external departments/bodies

Environment MCC (Flood Risk) – No further assessment required

Archaeology MCC – Has requested that pre-development testing be undertaken prior to a planning decision being made. (This Planning Officer had recommended that further information be sought in relation to this issue).

Area Engineer MCC – Raises a number of queries/issues as follows:

- Why isn't the data centre located within Killala Business Park
- Why can't existing private access roads to other developments within the site's vicinity be used?
- What is the source of the HVO fuel for the on-site generators?
- The proposed PV installation is limited
- What is the source of the fill material required
- No carpark lighting layout and design submitted
- A setback is required along site road frontage
- The durability of the green wall proposal is questioned
- Can district heating be utilised?
- Could the building be located on a lower part of the site and power cables ran underground?
- Are all other consents in place, ie that of the Industrial emissions license with the EPA and that of the 110kv substation.

Conservation Architect: - The proposal will adversely impact on the setting of Ballyskeery Glebe House and rectory Protected Structure reference 0272.

Some of these queries will be formalised in a further information request.

6.0 Planning History

Although there is no planning history on the application site itself, there is significant recent planning history on lands in the site's immediate surrounds, namely, and of particular relevance are:

- **16/694 (as extended under 16/6940 – This permission now expires 15th June 2027)** – Permission was granted by MCC for MODIFICATIONS TO EXISTING 12,000SQM VACANT WAREHOUSE BUILDING TO ACCOMMODATE PROPOSED DATA CENTRE WITH OFFICES, INCLUDING THE REMOVAL OF THE EXISTING ROOF AND INSTALLATION OF A NEW INSULATED ROOF AND ASSOCIATED EXTRACT GRILLES, OVER CLADDING OF THE EXISTING BLOCK WALLS AND CONCRETE FRAME WITH INSULATED PANELS, FASCIA ELEMENTS AND NEW FENESTRATIONS, PARTIAL REPLACEMENT OF THE EXISTING INTERNAL FLOOR TO THE OFFICE AREAS AS PROPOSED. THE PROPOSAL ALSO SEEKS PERMISSION FOR THE CONSTRUCTION OF A NEW 13,200SQM PURPOSE BUILT DATA CENTRE LOCATED TO THE NORTH OF THE EXISTING WAREHOUSE TO A VARYING HEIGHT OF 7-12M AND NETWORKING BUILDING 725SQM LOCATED TO THE EAST TO A HEIGHT OF 6.5M. 1 NO. GENERATOR COMPOUND (C.1895 SQM) HOUSING 13 NO. GENERATORS AND INCLUDING 4 NO.

FLUES TO HEIGHT OF 15M AND 1 NO. TRANSFORMER COMPOUND (C.623SQM) ALSO INCLUDED ARE ANCILLARY SITE WORKS FOR CONNECTION TO EXISTING INFRASTRUCTURAL SERVICES, AS WELL AS SECURITY ENTRANCE GATES, MINI PILLAR, FENCING, LANDSCAPING, ROAD AND SECURITY LIGHTING, PERIMETER SERVICE ROADS TO THE BUILDINGS, 27 NO. PARKING SPACES (INCLUDING 3 NO. UNIVERSAL ACCESSIBLE SPACES), BICYCLE PARKING AND SMOKING SHELTER

- **23/60266** – HYDROGEN PLANT AND ENERGY CENTRE (northeast of the site) – Currently at Further Information stage.
- **23/60134** – 50 MEGAWATT (MW) ELECTRICITY GENERATION STATION (north of site). This was granted permission by M.C.C in February 2024 subject to conditions.
- **22/562** – EXTENSION TO EXISTING CABLE LANDING STATION and E.S.B substation (east of site). This was granted permission by M.C.C. in September 2022.
- **18/362** – PERMISSION FOR 3 NO. BESPOKE ELECTRICAL PLANT ROOM CONTAINERS AND 1 NO. CHILLER UNIT AND RETENTION PERMISSION FOR STORAGE (east of site). This was granted permission in September 2019 subject to conditions.
- **17/619** – 5 NO. TURBINE WIND FARM (north of site). This was granted permission in February 2018 subject to conditions.
- **13/158** – ELECTRICAL TRANSFORMER STATION (northeast of site). This was granted permission in September 2013 subject to conditions.

7.0 Planning application documentation submitted as follows:

Planning drawings covering all aspects of the proposed development namely

- Architectural Design Statement
- Architectural Drawings,
- Engineering Planning Report,
- Outline Construction Management Plan,
- Traffic and Transport Assessment,
- Mobility Management Plan,
- Engineering Drawings,
- Commercial Energy Statement,
- Landscape Report & Outline Landscape Specification,
- Landscape Drawings,
- Environmental Impact Assessment Report,
- Natura Impact Statement,
- Water Framework Directive (WFD) Screening Assessment,

7.1 Environmental Reports submitted:

An Environmental Impact Assessment Report (EIAR) has been submitted as part of the application. Volume 2 of the Environmental Impact Assessment Report (EIAR) deals with following chapters:

- CHAPTER 1: INTRODUCTION
- CHAPTER 2: DESCRIPTION OF DEVELOPMENT
- CHAPTER 3: PLANNING & ALTERNATIVERS
- CHAPTER 4: HUMAN HEALTH
- CHAPTER 5: LAND, SOILS, GEOLOGY & HYDROGEOLOGY
- CHAPTER 6: HYDROLOGY
- CHAPTER 7: BIODIVERSITY
- CHAPTER 8: AIR QUALITY
- CHAPTER 9: CLIMATE
- CHAPTER 10: NOISE & VIBRATION
- CHAPTER 11: LANDSCAPE AND VISUAL IMPACT
- CHAPTER 12: ARCHAEOLOGY, ARCHITECTURAL & CULTURAL HERITAGE
- CHAPTER 13: MATERIAL ASSETS - TRAFFIC AND TRANSPORTATION
- CHAPTER 14: MATERIAL ASSETS – UTILITIES
- CHAPTER 15: MATERIAL ASSETS – WASTE
- CHAPTER 16: INTERACTIONS
- APPENDICES ETC

A Natura Impact Statement (N.I.S) has also been submitted.

The Planning Authority has conducted a formal review of both the EIAR and NIS following the receipt of further information. Please refer to the appendices of this report in this regard.

8.0 3rd Party Submission received:

5 no . submissions from non statutory 3rd parties, which raise the following issues/concerns:

Greenhouse gas emission reductions:

- Given the power usage of data centres, it is submitted by all that the proposal is not sufficiently powered by on or off-site renewables, as per the requirements of Irelands Climate Action Plan and commitments under the 2015 Paris Agreement.
- The proposal ignores Ireland's obligations under the Energy Efficiency Directive (EED) which requires Ireland to reduce both its primary and final energy consumption by 2030, and is contrary to Ireland's "net-zero" trajectory. Mitigation measures proposed within the EIAR, it is submitted, are insufficient.
- Ireland is not on-track to meet its national and E.U climate targets, especially given the proposal to use back up HVO generators as part of the proposal.
- Corporate Power Purchase Agreements (CPPA), which are often offered as mitigation for Data Centre developments, are of no environmental benefit for new date centre developments.

- Offsetting Greenhouse gas emissions through carbon credits ignores the basic fact that these emissions will still occur.
- Data Centres must provide sufficient energy storage (e.g. battery or renewable fuel) rather than fossil fuel-based emergency storage, as is proposed. It is submitted that the on-site solar installation prosed will provide only 0.1% of the plants power needs. This will lead to an increase in Ireland's greenhouse gas emissions.

Planning Authority response:
Point no. 1 of the further Information request was made in relation to aspects pf the projects proposed energy use. Please refer to Section 10 of this report below.

Perceived errors in application/EIAR and lack of transparency:
- The calculations offered for Greenhouse Gas emissions in the EIAR are flawed.
- Perceived factual errors are pointed out in the EIAR.
- The transparency of aspects of the planning application is questionable, especially with regard to the company in whose name the application is being made.

Planning Authority response:
The Planning Authority generally accepts any specific facts and figures of planning applications as presented, unless it has strong evidence to the contrary.

Growth in Data centres in Ireland and need for same:
- There has been an unsustainable growth in data centre development in Ireland, which goes against Irelands targets for power usage from renewable energy sources, due to their large energy demands.
- The Cost/Benefit of Data Centres is questionable with one point being made that much of the data being stored is redundant.

Planning Authority response:
- The Planning Authority is obligated by national, as well as county planning policy when assessing developments such as this. There is support contained in the MCDP 2022-2028 for the proposed development.

District Heating and use of heat generated:
- Heat generated from Data Centres should be utilised for district heating systems, or in the absence of such systems, existing heat pump technology should be used to avoid the waste of generated heat energy from the date centre.
- Blackouts as a result of pressure from data centres is a real risk.

Planning Authority response:
A condition will be attached to any grant of permission making provision for any future district heating system within the Business Park.

Lack of Community engagement:

- While developments in the tech sector outside Dublin such as this are welcomed, it is submitted that better consultation with the local community should have occurred.

Planning Authority response:
There is no obligations under planning legislation to carry out any specific public consultation so this is a not a matter for the Planning Authority.

Planning History of area:
- The Planning History of the site's wider area provided within application documents is inaccurate, notably that of another Data Centre permitted in the site's immediate surrounds sunder reference number 16/694.

Planning Authority response:
Point no. 2 of the further Information request was made in relation to aspects pf the projects proposed energy use. Please refer to Section 10 of this report below.

Impact of historical house:
- It is submitted that the development will impact adversely on a house of historical and architectural importance that is in close proximity to the site.

Planning Authority response:
Ballysakeery House and rectory are located c. 140m from the development's main building. While concerns raised from the MCC Conservation Architect are noted as outlined above. Additional native planting is proposed around the perimeter of the Ballysakeery House site. The applicant has offered to renovate Ballyskeery House for public use however the Planning Authority has no remit in this regard.

9.0 Planners Assessment:

The following chapter sets out the predominant issues of note under which this planning application is being, and will be, assessed.

9.1 MCDP (Mayo County Development Plan) 2022-2028 Volume 1
While many sections of the MCDP directly and indirectly apply in the assessment of this application, the following are considered to be of most significance:

Chapter 4 – Economic Development
Chapter 11 – Climate Action and Renewable Energy

9.2 MCDP 2022-2028 Volume 2 – Development Management Standards
Of particular relevance are the following sections:
Section 5.0 – Enterprise & Employment
Section 7.0 – Roads and Parking

Section 8.0 – Infrastructure, Service and Safety
Section 11.0 – Built Environment
Section 12.0 – Natural Environment
Section 13.0 – Guidance for Planning Applications and Assessments Required for Certain Developments

9.3 Specifics of the Proposed Development

9.3.1 Location Dependency

The application makes the case for the chosen location based primarily on a number of existing developments, planned or existing in the area, namely the transatlantic landing station, renewable energy developments such as a Hydrogen Energy Plant and Wind Farm developments. No details of any existing agreements with the providers of these projects have been provided as part of the information submitted. In order to avoid permitting a development that may be speculative in nature. Further Information was sought in relation to this (please see Section 10.0 of this report).

9.3.2 Scale of Development/Visual Impact

The development proposed is extensive in scale, with a stated planned floor area across all components of 29,076m². The buildings height is a maximum of 22.7m. A "green walls" approach is incorporated ion the façade design. Further Information will be sought in relation to relevant comparable examples of where this green wall approach has been successfully carried out. The site rises from the serving local road (L-1111) to the south, in a northern direction to where the main building will be located on site. While a landscaping plan has been submitted, along with a "green walls" approach to the building's façade as mentioned, no justification for the building's overall scale and height has been submitted. Further Information was sought in relation to this (please see Section 10.0 of this report).

9.3.3 Architectural & Historical Heritage:

A house of historical importance is located immediately south of the application site, namely Ballysakeery Glebe House, which is recorded on the National Inventory of Architectural Heritage (NIAH Ref. 31302208). A report has not been received from the MCC Conservation Architect. The applicant has offered to contribute to the restoration of the property for community use.

9.3.4 Infrastructure requirements

Energy Usage – A Commercial Energy Statement has been submitted as part of the application, which aims to address the energy performance, and sustainability of construction of the proposed datacentre. The document lacks detailed analysis of the perceived lack, or otherwise, of on-site or off-site renewables that could assist in powering the proposed development. The Commission for Regulation of Utilities (C.R.U) requires that "grid connections" which require that any developer provides on-site dispatchable generation, and/or storage, equivalent to or greater than its demand. Further Information was sought in relation to this (please see Section 10.0 of this report). An additional 110kv substation (subject to planning permission being granted) will be developed to the east of

the datacentre to help power the development. A low/zero carbon technologies feasibility study has been carried out within this document that concludes that heat pump chillers and Solar P.V are the most suitable renewable energy technologies for the proposed development. will be addressed via a further information request. The document lacks detailed analysis of the lack, perceived or otherwise, of on-site or off-site renewables that could better assist in powering the proposed development. It is proposed to provide a number of biofuel powered generators as a back-up power source on site.

Piped Water Services – Existing wastewater treatment plant operated by Uisce Eireann to the east of the application site. Existing public water infrastructure is in place serving the site. It is proposed to divert an existing water main to serve the development. In addition, a closed loop system for cooling is proposed. Attenuation ponds, permeable surfaces and other SUDS measures are proposed to manage surface water generation.

Access/Egress and Parking – Access/Egress is proposed to/from the local; road L-1111 (Mullafarry road) that runs along the south of the site. 56 no. car parking places are proposed on site, along with cycle parking provision.

10.0 Further Information

Requested: 23rd January 2025
Received: 4th March 2025

The following section of this report outlines the points of further information sought, followed immediately by the applicant's response and the Planning Authority's assessment of same.

1 The Planning Authority has concerns about the lack of energy from renewable sources, as an overall percentage of required power, that will be generated/utilised in the operation and running of the Data Centre. The power generated from the proposed P.V installation appears to represent an insignificant contribution to the sustainable operation of the plant, and, alongside the fuel powered back-up generators does not represent best practice. In this regard, going forward, can the applicant demonstrate how it will be possible for the development to comply with the Commission for Regulation of Utilities (C.R.U) requirement regarding the "grid connections" which require that any developer provides on-site dispatchable generation, and/or storage, equivalent to or greater than its demand.

Response: While the response acknowledges that essentially the energy for the development will be secured from the national grid, it states that electricity on the grid is increasingly being sourced from renewable sources (40% in 2023 as sourced from SEAI website). This will be further increased based on targets in Ireland's Climate Action Plan (CAP).

It is also stated in response that the development would be proximal to substantial renewable energy projects, both existing and planned, and the applicant would be willing to enter into Corporate Power Purchase agreements (CPPA) with renewable energy providers as and when these options become available. Particular mention is made to windfarm developments as the source.
Back-up electricity generators on-site will be powered via Hydrotreated Vegetable Oil (HVO) to minimise environmental impacts. The Planned PV installation will run continuously and is therefore not intended to count as dispatchable generation. Of most significance it is stated that the on-site generation system *"will provide both back up to the facility and dispatchable capacity when required by the Transmission System Operator"*. The on-site generation system has a total of 73MW of generation capacity, which it is claimed far exceeds the minimum CRU requirement.
In relation to a grid connection the applicant states that they are in discussions with Eirgrid who they say have confirmed that they will process an application for connection for the project once planning permission is granted. The Planning Authority notes the CRU's proposed decision on new electricity connections policy for data centres.
The Planning Authority is satisfied with the response received.

2 Section 4.0 (Planning History) of the accompanying Planning Report submitted does not refer to the existing planning permission in place on a nearby site (MCC Planning reference 16/694 as extended under planning reference 16/6940) for another Data Centre. Please justify the need for another development of this nature at this specific location.

Response: In response it is stated that this permission (following the granting of an extension of duration to the permission, under Section 42 of the P&D Act 2000 as amended) is due to expire in June 2027, and as yet works/development have not commenced on site. The response then goes onto to highlight that data centres are important to the economic development of a country both at national and local levels, and that there is strong support for these in policy guidance, and there is no risk of the proposed data centre impacting on the viability of the previously permitted data centre nearby.
In support, the applicant has quoted and taken extracts from national, regional and county planning policy in support of such development proposals, namely the *National Planning Framework* (NPF), The *Regional Spatial and Economic Strategy* (RSES), and the *Mayo County Development Plan 2022-2028* (MCDP). Other supporting documentation is sourced, namely the *Government Statement on Data Centres in Ireland's Enterprise Strategy,* July 2022. The response also quotes and makes arguments based on the recently published (February 2025) Commission for Regulations of Utilities – *Large Energy Users Connection policy,* as well the *Programme for Government 2025 Securing Ireland's future.*

3 Please provide justification for the scale and more significantly, the height of the proposed building, which at 22m, may result in a development that is incongruous with the surrounding landscape. As part of this please provide technical justification as to why the main building cannot be located on a lower part of the site.

Response: In response it is stated that the 22m refers to the tallest aspect of the building, and that the parapets which define the buildings volume only reach a height of 18.6m. The height of the building, it is stated, is a result

of practical requirements relating to airflow and associated cooling, and organised power distribution which is accepted. Examples of already constructed data centres in the country are cited, which have similar heights to that proposed. The topography of the site is also cited, as well as certain man-made features, which in combination has resulted in the proposed location on the northern part of the site. As the sites slopes from north to south considerably, it is proposed to counteract this by lowering the existing ground levels, as well as the use of planted berms.

4 The Planning Authority notes the "Green Walls" approach that has been incorporated into the building's design.

(i) Please address any concerns that the Planning Authority has in relation to fire risk from non-maintained "green walls".

(ii) Please provide a relevant current example where the green walls concept has been successfully implemented in a similar environment/climate as prevails at the application site's location.

Response: In response to fire safety concerns raised, a detailed list of mitigation measures is provided to address any fire safety risk, included maintenance procedures. An array of pictorial examples has been submitted in response to point 4(ii).

5 Regardless of the absence of any District Heating System in the vicinity of the development site, the Planning Authority is concerned about the lack of suggested use(s) for the heat that will be generated by the development, which via existing technology, could be used to heat separate industrial operations, both planed and existing, within Killala Business Park. Please address the concerns of the Planning Authority in this regard.

Response: In response it is stated that the development is compatible with the principle of district heating, should a suitable user be identified in the locality of the site. Additionally, it is claimed that off-site heat exportation could take place via installed pipework to the perimeter of the site. The applicant appears open to considering this option in the future. A condition will be attached in this regard.

6 The Planning Authority notes the references made in the documentation submitted, to the nearby transatlantic cable landing station, and the potential for the proposed development to take advantage of this proximity. Please provide the Planning Authority with any details of any agreements/discussions that exist, or have taken place, in this regard.

Response: In response the applicant states that while they have been in contact with Aquacomms (owner/operator of sub-sea cable), no specific collaboration has been

agreed. It is stated that it is customary for the ultimate end-user of the data centre to directly engage with telecommunications providers in relation to commercial agreements, however the applicant states that they will negotiate the physical means of connection to the site with the fibre network owners. Relevant sections and objectives from the MCDP 2022-2028 relating to the transatlantic cable, and specifically the Killala area, are provided in support of this response.

7 In relation to the proposed access/egress to/ from the local road to the south of the site, please submit the following:

(i) Please outline why the site cannot be accessed from the north via Killala Business Park.

(ii) In the event that access to the site via Killala Business Park is not possible, please submit a revised site layout plan indicating a sufficient roadside setback so that site visibility in accordance with Section 7.6 of Volume 2 of the Mayo County Development Plan 2022-2028 (i.e. measured to the near road edge) can be demonstrated.

Response: In response it is stated that access from the north would not be compatible with the proposed site layout, and that the issue of separate landownership and existing/permitted 3rd party developments would also prevent this option.
In relation to the proposed access, it is stated that bot the primary and emergency site access/egress proposals are compatible with MCDP road standards, and adequate proposals have been submitted in this regard.

11.0 Environmental Impact Assessment Report (EIAR)

The EIAR report examines each environmental factor in a separate chapter. These EIAR chapters have been prepared by suitably qualified expert(s) and have considered the construction and operational phases of the Proposed Development under the following headings:

- Non-Technical summary
- Description of the Proposed Development
- Alternatives
- Population and Human Health
- Land, Soils, Geology and Hydrogeology
- Hydrology
- Biodiversity
- Air Quality
- Climate
- Noise and Vibration
- Landscape and Visual Impact Assessment
- Archaeology, Architectural and Cultural Heritage
- Traffic and Transport
- Material Assets (Utilities and Waste)
- Material Assets (Waste)

The EIAR is generally considered adequate. Any perceived gaps in information or concerns will be addressed via a further information request. A report has been prepared in relation to same. Please refer to Appendix 1 of this report.

12.0 Appropriate Assessment

A Natura Impact Statement (NIS) has been submitted as part of this application. A report has been prepared in relation to same. Please refer to Appendix 2 of this report.

13.0 Development Contributions

Applicable in accordance with the current Mayo County Council Development Contribution Scheme:

Single data centre building (c. 23,908 sq.m),

Administrative and staff services block (c. 5,052 sq.m)

Total - 29,076 m^2

Class 5 – Commercial/Industrial - €20 per m^2

29076 x 20 = €581,520

12.0 Recommendation

Having reviewed the proposed details contained in the Application Documentation, EIAR & NIS, as well as the response to the further information request issued, the Planning Authority recommends that permission is granted for the proposed development, in accordance with the conditions as set out below:

1. The development shall be carried out in accordance with the site layout plans, elevations, sections and particulars lodged with the application received by Mayo County Council on 21st November 2024 and details set out in the further information received on March 4th 2025, except as amended by conditions hereunder.
   Reason: In the interests of proper planning and sustainable development of the area.

2. All mitigation as proposed in the EIAR and NIS documents submitted shall be carried out in full.
   Reason: In the interest of clarity and orderly development

3. Prior to the commencement of development, a Construction Traffic Management Plan shall be prepared and agreed in writing with the Planning Authority.
   Reason: In the interest of orderly development and traffic safety

4. No mud, dirt or surface water is to discharge onto the public road network as a result of construction activities. Roads to be kept clean at all times.
Reason: In the interest of traffic safety.

5. Existing roadside drainage is to be maintained at all site access locations with pipes of suitable size used so as not to impede the flow of surface water.
Reason: In the interest of traffic safety and to avoid flooding of the public road.

6. Details, including samples of the materials, colours and textures of all the external finishes to the proposed buildings and boundary treatment shall be submitted to and agreed in writing with, Mayo County Council (Ballina M.D Architect) prior to commencement of development.
Reason: In the interests of visual amenities of the area.

7. The noise level shall not exceed 55 dB(A) Leq (corrected for any tonal or impulsive component) at the nearest noise sensitive locations, including dwellings, between 0800 and 2000 hours, Monday to Friday inclusive, and shall not exceed 45 dB(A) Leq at any other time. All sound measurement shall be carried out in accordance with ISO 1996-1:2016 "Acoustics – Description, measurement and assessment of environmental noise – Part 1: Basic quantities and assessment procedures". Procedures for the purpose of determining compliance with this limit shall be submitted to and agreed in writing with Mayo County Council prior to commencement of development.
Reason: To protect the amenities of property in the vicinity of the site.

8. Comprehensive details of the proposed overall external lighting system (including carpark) and signage to serve the development shall be submitted to and agreed in writing with Mayo County Council prior to commencement of development. The agreed lighting system shall ensure that there is no light spill into adjoining properties or the public road. The lighting plan shall accord with best practice and shall be as set out in the EIAR submitted as part of the documentation submitted.
Reason: In the interest of visual and residential amenity and to protect bats.

9. No additional development shall take place above roof parapet level including lift motor enclosures, air handling equipment, storage tanks, ducts or other external plant, telecommunication aerials, antennae or equipment, unless authorised by a further grant of permission.
Reason: In the interest of visual amenity

10. If deemed necessary and appropriate by the Planning Authority during the life of the project, the applicant shall be required to install suitable pipework to an agreed location at the sites perimeter to facilitate a district heating system.
Reason: To facilitate the development of a district heating system

11. All service cables associated with the proposed development (such as electrical and communication cables) shall be located underground.

Reason: In the interests of visual amenity.

11. The following contributions shall be paid to Mayo County Council prior to commencement of the development. The development contributions may increase in accordance with the Wholesale Price Index for Building and Construction in January of each year from the date of grant of permission up to the date that payment is made to Mayo County Council.

€581,520

Reason: To comply with Mayo County Council's Development Contribution Scheme 2023.

Signed: _____

Barry Freeman (Executive Planner)

Date: 22nd April 2025

Recommendation of Co-Signing Planner

Having considered the application details and the various reports and recommendations applicable, I agree with the recommendation made above and therefore recommend that planning permission is granted for the proposed development, subject to the stated conditions.

Signed:

_____

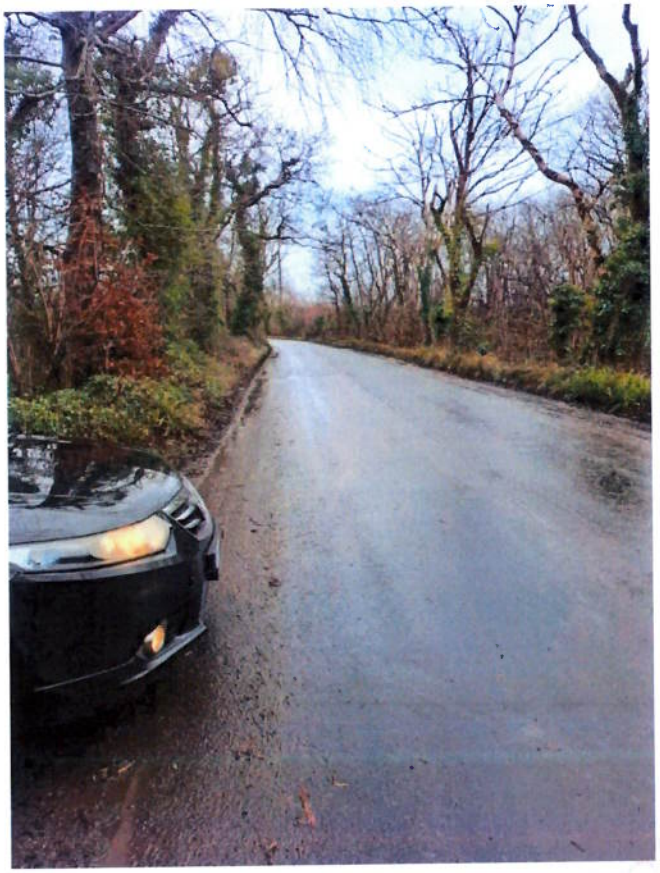
Brendan Munnelly (Senior Executive Planner)

Date: 23/04/2025

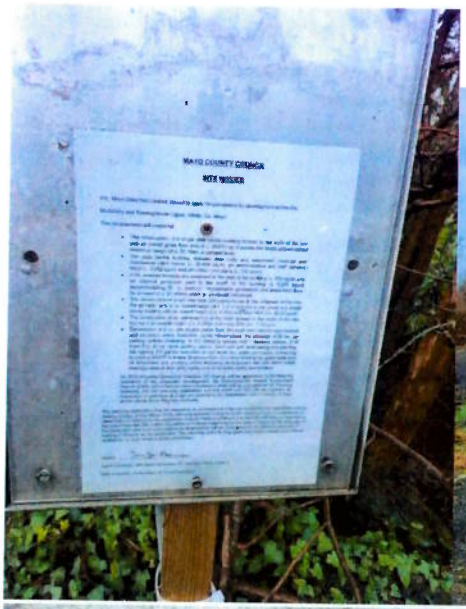




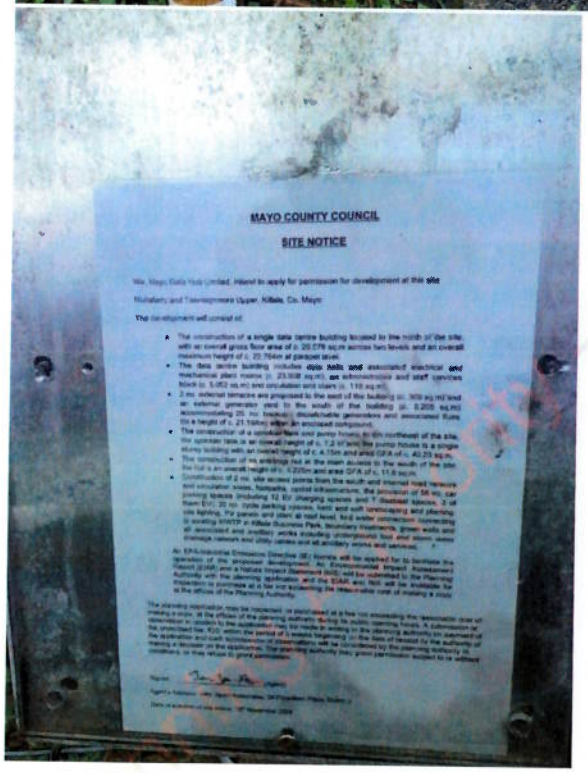
Roads Authority - Inspection purposes











MAYO COUNTY COUNCIL

SITE NOTICE

We, Mayo Data Hub Limited, intend to apply for permission for development at this site

Mullatiary and Tawnaghmore Upper, Killala, Co. Mayo.

The development will consist of:

- The construction of a single data centre building located to the north of the site, with an overall gross floor area of c. 20,076 sq.m across two levels and an overall maximum height of c. 22.764m at parapet level.
- The data centre building includes data halls and associated electrical and mechanical plant rooms (c. 23,938 sq.m), and administrative and staff services block (c. 5,952 sq.m) and circulation and stairs (c. 110 sq.m).
- 3 no. external terraces are proposed to the east of the building (c. 309 sq.m) and an external generator yard to the south of the building (c. 6,205 sq.m) accommodating 25 no. backup diesel/biofuel generators and associated flues to a height of c. 21.146m) within an enclosed compound.
- The construction of a substation, back-up pump house, to the northeast of the site, the substation has an overall height of c. 7.2 m and the pump house is a single storey building with an overall height of c. 4.15m and area GFA of c. 40.23 sq.m.
- The construction of 4 no. weighbridges, two at the main access to the south of the site, the first is an overall height of c. 4.220m and area GFA of c. 11.6 sq.m.
- Construction of 2 no. site access points from the south and internal road network and circulation areas, footpaths, ancillary infrastructure, the provision of 56 no. car parking spaces (including 12 EV charging spaces and 7 disabled spaces, 3 of them EV), 20 no. cycle parking stands, kerb and soft landscaping and planting, site lighting, PV panels and plant at roof level, foul water connection (connecting to existing WWTP in Killala Business Park, boundary treatments, green walls and all associated and ancillary works including underground foul and storm water drainage network and utility cables and all ancillary works and services.

An EPA Industrial Emissions Directive (IE) licence will be applied for to facilitate the operation of the proposed development. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) will be submitted to the Planning Authority with the planning application and the EIAR and NIS will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority.

The planning application may be inspected, or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of the planning authority during its public opening hours. A submission or observation in relation to the application may be made in writing to the planning authority on payment of the prescribed fee, €20, within the period of 5 weeks beginning on the date of receipt by the authority of the application and such submission or observations will be considered by the planning authority in making a decision on the application. The planning authority may grant permission subject to or without conditions, or may refuse to grant permission.

Signed: [redacted]

Agent's Address: [redacted]

Date of publication of this notice: 18th November 2020

Mayo Planning Authority Inspection Purposes Only

Appendix 1 - ENVIRONMENTAL IMPACT ASSESSMENT REPORT.

Planning Register Ref: 24/60708

1. Description of the Development.

The construction of a single data centre building located to the north of the site, with an overall gross floor area of c. 29,076 sq.m across two levels and an overall maximum height of c. 22.764m at parapet level. The data centre building includes data halls and associated electrical and mechanical plant rooms (c. 23,908 sq.m), an administrative and staff services block (c. 5,052 sq.m) and circulation and stairs (c. 116 sq.m). 2 no. external terraces are proposed to the east of the building (c. 309 sq.m) and an external generator yard to the south of the building (c. 5,205 sq.m) accommodating 25. no. backup / dispatchable generators and associated flues (to a height of c. 21.164m) within an enclosed compound. The construction of a sprinkler tank and pump house to the northeast of the site, the sprinkler tank is an overall height of c. 7.2 m and the pump house is a single storey building with an overall height of c. 4.15m and area GFA of c. 40.23 sq.m. The construction of an entrance hut at the main access to the south of the site, the hut is an overall height of c. 3.225m and area GFA of c. 11.6 sq.m. Construction of 2 no. site access points from the south and internal road network and circulation areas, footpaths, cyclist infrastructure, the provision of 56 no. car parking spaces (including 12 EV charging spaces and 7 disabled spaces, 3 of them EV), 20 no. cycle parking spaces, hard and soft landscaping and planting, site lighting, PV panels and plant at roof level, foul water connection connecting to existing WWTP in Killala Business Park, boundary treatments, green walls and all associated and ancillary works including underground foul and storm water drainage network and utility cables and all ancillary works and services. An EPA-Industrial Emissions Directive (IE) licence will be applied for to facilitate the operation of the proposed development. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) will be submitted to the Planning Authority with the planning application and the EIAR and NIS will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority.

2. Introduction.

2.1. Environmental Impact Assessment.

In accordance with the requirements of Article 3 of the European Directive 85/337/EEC, as amended by Council Directive 2011/92/EU and European Directive 2014/52/EU and Section 171A of the Planning & Development Act 2000 as amended. This process requires Mayo County Council, as the competent authority, to identify, describe and assess in an appropriate manner, in light of each individual case and in accordance with Articles 4 to 11 of the EIA Directive, the direct and indirect effects of the proposed development on the five indents listed in Article 3 of that Directive as set out below:

a) population and human health
b) biodiversity,
c) land, soil, water, air and climate
d) material assets, cultural heritage, and the landscape
e) the interaction between the factors mentioned in paragraphs (a) to (d).

This assessment also requires that consideration be given, where relevant, to the indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the proposal, including those which arise during the construction phase, which are essentially short-term and temporary, as distinct from the likely long-term effects arising from the operational phase.

2.2. Matters considered in the Assessment.

This Environmental Impact Assessment was informed by:

(a) the contents and conclusions of the Environmental Impact Assessment Report (EIAR) received as part of the planning application;
(b) the internal & external technical reports received;
(c) Other relevant guidelines from appropriate regulatory authorities

This assessment aims to look at the likely effects of the development on the environment and its likely consequences for the proper planning and sustainable development of the area in which it is proposed to be situated. In addition to the above the assessment also has regard to potential mitigation measures, including those indicated in the EIAR, and any others which might reasonably be incorporated into any decision to approve the development through the attachment of appropriate planning conditions.

3. Adequacy of the EIAR.

The EIAR which has accompanied the subject application follows a grouped format structure with each environmental topic presented in a separate section. It includes a generally satisfactory description of the receiving environment, the proposed development, its impacts and proposed mitigation measures, and has been accompanied by a non-technical summary. In my opinion, this document can be described as 'adequate' in that it accords with the minimum requirements of Schedule 6 of the Planning and Development Regulations 2001-18 and includes the information specified Article 94 of those Regulations and Council Directive No. 2014/52/EU, or as by any subsequent legislation. I am satisfied that there is sufficient information on file to assess the likely effects of the development on the environment and its likely consequences for the proper planning and sustainable development of the area in which it is proposed to be situated.

4. Likely Significant Effects of the Proposed Development on the Environment.

The following assessment relates to the impacts and mitigating measures listed in the EIAR submitted. The format lists the potential impacts in the first column with the proposed mitigating measures in the second column. The purpose of this format is to highlight the main issues and make it easier to read/take in. The planner's finding on each item is then highlighted ***(brackets and bold)*** at the end of each section.

Potential adverse impacts and mitigation measures proposed in EIAR, in the following order:

- Population and Human Health
- Land, Soils, Geology and Hydrogeology
- Hydrology
- Biodiversity
- Air Quality
- Climate
- Noise and Vibration
- Landscape and Visual Impact Assessment
- Archaeology, Architectural and Cultural Heritage
- Traffic and Transport
- Material Assets (Utilities)

Topic	Potential Source of Impact (of note)	Mitigations measures proposed
Population and Human Health	Construction Phase: - Landscape changes - Accidental spills/water pollution - Other construction related nu - isances such as additional traffic	- Construction Management Plan to be implemented to include best practice in construction site management - Specific mitigation proposals are set out for each potential source of nuisance., eg appointment of a noise liaison officer and the agreement in advance of development of Construction Traffic Management plan which is a condition of permission.
	Operational Phase: - Issues associated with additional traffic - Increased noise levels	- Implementation of a Mobility Management Plan (MMP) for staff to reduce reliance on private car. - Low-noise equipment to be used and in-line acoustic attenuators will be incorporated for stacks and exhausts as needed. A condition relating to permitted noise levels has been attached to the grant of permission.
	Planner's finding: I am satisfied that based on the proposed mitigation measures, the proposal will not have a significant adverse impacts on population and human health.	

Land, Soils, Geology and Hydrogeology	**Source of Impacts (of note)**	**Mitigations measures proposed**
	Construction Phase: - Excavation and infilling - Accidental spills/leaks	Construction Management Plan to be implemented including - control of soil excavation - sourcing of fill and aggregates - water management - proper fuel handling
	Operation Phase: - Spills of HVO - Threat to groundwater	- Regular monitoring and maintenance of silt traps - Use of interceptor systems to protect ground and surface waters - Application of SUDS drainage systems and a stormwater management system
	Planner's finding: I am satisfied that based on the proposed mitigation measures, the proposal will not have a significant adverse impacts on Land, Soils, Geology and Hydrogeology.	
Hydrology	**Source of Impacts (of note)**	**Mitigations measures proposed**
	Construction Phase: - Sediment loading in surface water run-off - Accidental spills discharges etc	Implementation of Construction Management Plan measures, in particular; - Fuel and Chemical handling - Management of quality of run-off water - Silt reduction measures
	Operation Phase - Increase in hardstand and increased run-off from same - Leak from HVO generators	- Management of surface water on-site via attenuation ponds etc - Use of interceptors - Connection to Irish Water Infrastructure
Planner's finding: I am satisfied that based on the proposed mitigation measures, the proposal will not have a significant adverse impacts on Hydrology.		
Biodiversity	**Source of Impacts (of note)**	**Mitigations measures proposed**
	Construction Phase - Potential impact on nesting birds and bats during site clearance works	- Landscaping plan prepared showing replacement planting with native planting species

		- A Tree assessment will be carried out by an ecologist prior to site removal works to look for signs of bat roosts.
	Operational Phase - Illumination of natural areas e.g. hedgerows at night	- Best practice to be used in site lighting design. A plan has been sought by way of condition of this permission.
Planner's finding: I am satisfied that based on the proposed mitigation measures, the proposal will not have a significant adverse impacts on biodiversity.		
Air Quality	**Source of Impact**	**Mitigations measures proposed**
	Construction Phase - Increase in construction traffic and dust related impacts in particular -	- A Construction Environmental Management Plan has been prepared - A Construction Traffic Management Plan will be agreed prior to development commencing
	Operational Phase - Exhaust emissions from increased traffic over life of the plant - Increase in emission from back up generators	- HVO generators to be used - Implementation of a Mobility Management Plan (MMP) for staff to reduce reliance on private car.
Planner's finding: I am satisfied that based on the proposed mitigation measures, the proposal will not have significant adverse impacts on Air Quality.		
Climate	**Source of Impact**	**Mitigations measures proposed**
	Construction Phase - Increase in construction traffic and related emissions	- A Construction Environmental Management Plan has been prepared - A Construction Traffic Management Plan will be agreed prior to development commencing
	Operational Phase - Increased us of electricity - Release of Greenhouse Gas (GHG) emissions	- A GHG emissions permit will be required for the facility which will be regulated under the EU-wide Emission Trading System. - Use of (Hydrotreated vegetable oil) HVO in back-up generators - Use of Corporate Purchase Power Agreements (CPPA) between renewable energy

		projects and project tenants which would offset residual GHG emissions.
Planner's finding: I am satisfied that based on the proposed mitigation measures, the proposal will not have a significant adverse impacts on climate.		
Noise and Vibration	Construction Phase - Increase in noise associated with construction traffic and related machinery	- A Construction Environmental Management Plan has been prepared that incorporates best-practice mitigation measures - A condition has been attached to the grant of permission limiting noise and hours of construction activity.
	Operational Phase - Noise and vibration from the Building Services Plant - Increase in traffic to/from plant	- Design parameters in terms of sound power levels are incorporated into building design
Planner's finding: I am satisfied that based on the proposed mitigation measures, the proposal will not lead to a significant increase in noise/vibration levels.		
Landscape and Visual Impact Assessment	**Source of Impact**	**Mitigations measures proposed**
	Construction Phase - Impacts associated with earthworks and site clearance works -	- A Construction Environmental Management Plan has been prepared that incorporates standard best-practice measures such as orderly storage of construction materials, site hoarding etc.
	Operational Phase - Site topography alterations - Impact on setting of nearby Protected Structure -	- A landscaping plan to be implemented - Use of Green Walls in the buildings design
Planner's finding: I am satisfied that based on the proposed mitigation measures, the proposal will not have a significant adverse impact on the landscape and the visual amenities of the area.		
Archaeology, Architectural and Cultural Heritage	**Source of Impact**	**Mitigations measures proposed**
	Construction Phase - N/A	N/A

	Operational Phase - Impact on the setting of Ballyskeery House and Rectory - Protected Structure Ref 0272.	- A Landscaping plan has been submitted showing substantial planting proposed along the application site boundary with that of the curtilage of Ballyskeery House.
Planner's finding: I am satisfied that the proposal will not have a significant increased adverse impact on the archaeology, architecture and cultural heritage of the area.		
Traffic and Transport	**Source of Impact**	**Mitigations measures proposed**
	Construction Phase - Increase in noise associated with construction traffic and related machinery.	- A Construction Traffic Management plan is a condition of planning permission which is to be agreed prior to development commencing.
	Operational Phase	- Implementation of a Mobility Management Plan (MMP) for staff to reduce reliance on private car.
Planner's finding: I am satisfied that based on the proposed mitigation measures, the proposal will not have significant adverse impacts on the traffic and transport levels in the area.		
Material Assets (separated between utilities and waste)	**Source of Impact**	**Mitigations measures proposed**
	Construction Phase: - Additional burden on roads - Increased demand on water supplies - Waste generation during site excavation and construction	- Implementation of a Construction Traffic Management Plan which has been requested via planning condition.

	Operational Phase: - Additional burden on roads - Increased demand on electricity network - Increased demand on water - Need to remove foul and other waste off site	- Implementation of a Mobility Management Plan (MMP) for staff to reduce reliance on private car. - Use of a closed loop water system - Proper on-site storage and management, sorting of waste prior to being collected by licensed waste contractors
Planner's finding: I am satisfied that based on the proposed mitigation measures, the proposal will not have a significant adverse impact on the material assets of the area.		
Interactions between the foregoing	**Source of Impact**	**Mitigations measures proposed**
	None envisaged of note	N/A

Environmental Impact Assessment Conclusion.

Having regard to the Environmental Impact Assessment Report submitted with the application, and technical reports received and having considered the likely significant effects and their interaction on the environment as defined in Section 171A of the Planning & Development Acts 2000-2019 it is my opinion that the proposed development would not be likely to have significant adverse effects on the environment.

Barry Freeman
Executive Planner
Development Management Mayo County Council

Brendan Munnelly
Senior Executive Planner
Development Management Mayo County Council

23/04/2025

Chief Executive/Director of Services
Mayo County Council

Appendix 2 - APPROPRIATE ASSESSMENT REPORT

Mayo County Council Planning Register Ref: P24/60708

1. Introduction.

In accordance with Article 6(3) of the EU Habitats Directive and Section 177V of the Planning and Development Acts, 2000 (as amended) an appropriate assessment carried out by a competent authority shall take account the matters set out in Section 177V(2) and shall give consent for proposed development only after having determined that the proposed development shall not adversely affect the integrity of a European site.

In carrying out the "Appropriate Assessment" for the development proposed under P24/60708 (the project) in accordance with Section 177V(2) of the Planning and Development Acts, 2000 (as amended), Mayo County Council, as competent authority, is required to take into account each of the following matters:

(*a*) the Natura Impact Statement (NIS);
(*b*) any supplemental information furnished in relation to the NIS;
(*c*) any information or advice obtained by the planning authority;
(*e*) any written submissions or observations made to the council in relation to the planning application;
(*f*) any other relevant information.

This report follows the format set out in Section 177V(2) of the Planning and Development Acts, 2000 (as amended).

2. The Natura Impact Statement.

The NIS is set out in the following format, with these being the main chapter headings:

1) Introduction
2) Stage 1 – Screening for Appropriate Assessment
3) Stage 2 – Appropriate Assessment
4) Natura Impact Statement and Conclusion
5) References

3. Additional information requested by the council and furnished by the applicant in relation to the NIS.

N/A

4. Information or advice obtained by the council.

The data provided in NIS on European sites was cross-checked against Mayo County Council developed Natura 2000 network database.

5. **Any written submissions or observations made to the council in relation to the planning application**

Five submissions from non-statutory 3rd parties, which raise the following issues/concerns:

Greenhouse gas emission reductions:

- Given the power usage of data centres, it is submitted by all that the proposal is not sufficiently powered by on or off-site renewables, as per the requirements of Irelands Climate Action Plan and commitments under the 2015 Paris Agreement.
- The proposal ignores Ireland's obligations under the Energy Efficiency Directive (EED) which requires Ireland to reduce both its primary and final energy consumption by 2030, and is contrary to Ireland's "net-zero" trajectory. Mitigation measures proposed within the EIAR, it is submitted, are insufficient.
- Ireland is not on-track to meet its national and E.U climate targets, especially given the proposal to use back up HVO generators as part of the proposal.
- Corporate Power Purchase Agreements (CPPA), which are often offered as mitigation for Data Centre developments, are of no environmental benefit for new date centre developments.
- Offsetting Greenhouse gas emissions through carbon credits ignores the basic fact that these emissions will still occur.
- Data Centres must provide sufficient energy storage (e.g. battery or renewable fuel) rather than fossil fuel-based emergency storage, as is proposed. It is submitted that the on-site solar installation prosed will provide only 0.1% of the plants power needs. This will lead to an increase in Ireland's greenhouse gas emissions.

Perceived errors in application/EIAR and lack of transparency:

- The calculations offered for Greenhouse Gas emissions in the EIAR are flawed.
- Perceived factual errors are pointed out in the EIAR.
- The transparency of aspects of the planning application is questionable, especially with regard to the company in whose name the application is being made.

Growth in Data centres in Ireland and need for same:

- There has been an unsustainable growth in data centre development in Ireland, which goes against Irelands targets for power usage from renewable energy sources, due to their large energy demands.
- The Cost/Benefit of Data Centres is questionable with one point being made that much of the data being stored is redundant.

District Heating and use of heat generated:

- Heat generated from Data Centres should be utilised for district heating systems, or in the absence of such systems, existing heat pump technology should be used to avoid the waste of generated heat energy from the date centre.
- Blackouts as a result of pressure from data centres is a real risk.

Lack of Community engagement:

- While developments in the tech sector outside Dublin such as this are welcomed, it is submitted that better consultation with the local community should have occurred.

Planning History of area:

- The Planning History of the site's wider area provided within application documents is inaccurate, notably that of another Data Centre permitted in the site's immediate surrounds sunder reference number 16/694.

Impact of historical house:

- It is submitted that the development will impact adversely on a house of historical and architectural importance that is in close proximity to the site.

6. Other relevant information.

Essentially, details submitted were to the to the satisfaction of Mayo County Council.

7. Assessment.

The N.I.S submitted comprises adequate and substantial information on the relevant European Sites, and the potential for adverse impacts on same.

7.1 Development Description

The construction of a single data centre building located to the north of the site, with an overall gross floor area of c. 29,076 sq.m across two levels and an overall maximum height of c. 22.764m at parapet level. The data centre building includes data halls and associated electrical and mechanical plant rooms (c. 23,908 sq.m), an administrative and staff services block (c. 5,052 sq.m) and circulation and stairs (c. 116 sq.m). 2 no. external terraces are proposed to the east of the building (c. 309 sq.m) and an external generator yard to the south of the building (c. 5,205 sq.m) accommodating 25. no. backup / dispatchable generators and associated flues (to a height of c. 21.164m) within an enclosed compound. The construction of a sprinkler tank and pump house to the northeast of the site, the sprinkler tank is an overall height of c. 7.2 m and the pump house is a single storey building with an overall height of c. 4.15m and area GFA of c. 40.23 sq.m. The construction of an entrance hut at the main access to the south of the site, the hut is an overall height of c. 3.225m and area GFA of c. 11.6 sq.m. Construction of 2 no. site access points from the south and internal road network and circulation areas, footpaths, cyclist infrastructure, the provision of 56 no. car parking spaces (including 12 EV charging spaces and 7 disabled spaces, 3 of them EV), 20 no. cycle parking spaces, hard and soft landscaping and planting, site lighting, PV panels and plant at roof level, foul water connection connecting to existing WWTP in Killala Business Park, boundary treatments, green walls and all associated and ancillary works including underground foul and storm water drainage network and utility cables and all ancillary works and services. An EPA-Industrial Emissions Directive (IE) licence will be applied for to facilitate the operation of the proposed development. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) will be submitted to the Planning Authority with the planning application and the EIAR and NIS will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority.

7.2. European Sites
There are 2 no. sites comprising both, Special Areas of Conservation (S.A.C's) and Special Protection Areas (S.P.A) of particular relevance in this case, that the initial screening exercise identified, namely:

000458 Killala Bay/Moy Estuary SAC
004036 Killala Bay/Moy Estuary SPA

The boundaries of both Natura sites are both less than 2km from the application site.

7.3. Conservation Objectives of the European Sites
The conservation objectives as set out by the NPWS, were examined.

http://www.npws.ie

7.4. Elements of the project likely to give rise to impacts on the European Sites.

8.4.1 Direct and Indirect Habitat Impacts:
While the entire planning application area is located outside the boundary of any Natura 2000 site, two European sites are considered to be hydrologically connected to the site, namely the Killala Bay/Moy Estuary SAC and the Killala Bay/Moy Estuary SPA.
The Planning Authority is satisfied with the mitigation measures that have been included in the NIS submitted.

8. Conclusion.
On the basis of the information provided with the application, including the Natura Impact Statement and in light of the assessment carried out above, Mayo County Council is satisfied that the proposed development individually, or in combination with other plans or projects would not adversely affect the integrity of European Sites, provided that the mitigation measures contained in the NIS are implemented.

Prepared By: Barry Freeman, Assistant Planner – 22nd April 2025.

23/04/2025

Counter-signed By: Brendan Munnelly, Senior Executive Planner.

Appropriate Assessment Determination.
Mayo County Council, having completed an Appropriate Assessment in accordance with Article 6(3) of the EU Habitats Directive and Section 177V(2) of the Planning and Development Acts, 2000 as

amended, and having regard to the nature and scale of the proposed development, the nature of the receiving environment and the mitigation measures set out in the course of the planning application, hereby determines that the proposed development, on its own or in combination with other plans or projects, would not adversely affect the integrity of a European site and would, therefore, be in accordance with the proper planning and sustainable development of the area.

Chief Executive / Director of Services

APPENDIX 5: RESPONSE TO THIRD-PARTY APPEAL, AWN

Trinity Consultants awnconsulting

Registered Addre[illegible]he Tecpro Building, Clonshaugh Business & Technology Park, Dublin 17, Ireland / P +353 1 847 4220 / **awnconsulting.com**

16 June 2025

257501.0396AT01

RE: Response To Third Party Appeal From Dr. Colin Doyle Dated 20th May 2025

The enclosed technical note is a response to the third-party appeal from Dr. Colin Doyle dated 20th May 2025 in which grounds were raised in relation to Chapter 9 (Climate) of the EIAR.

This response has been prepared by Dr. Edward Porter. Dr. Edward Porter is Director with responsibility for Air Quality with AWN Consulting. He holds a BSc from the University of Sussex (Chemistry), has completed a PhD in Environmental Chemistry (Air Quality) in UCD where he graduated in 1997 and is a Full Member of the Royal Society of Chemistry (MRSC CChem), the Institute of Environmental Sciences (MIEnvSc) and the Institute of Air Quality Management (MIAQM). He specialises in the fields of air quality, climate and air dispersion modelling.

The response to the third-party appeal, overleaf, discusses the Proposed Development in the context of the recently published Climate Action Plan 2025 and in the context of the relevant Carbon Budgets and the Electricity Sectoral Emission Ceilings.

Kind regards

Edward Porter

Dr. Edward Porter
AWN Consulting

THIRD PARTY APPEAL FROM DR. COLIN DOYLE DATED 20TH MAY 2025

This document has been prepared in response to a third-party appeal from Dr. Colin Doyle (the appellant), dated 20th May 2025, against the grant of planning permission for a data centre at Kilalla, Co. Mayo. This document responds to Dr. Doyle's grounds which relate to greenhouse gas (GHG) emissions in the order in which they are raised. The paragraph headings below correspond to the paragraph numbers in Dr. Doyle's appeal:

Paragraphs 1 – 6 – Net Point of Contention

In paragraphs 1 - 6 - Net Point of Contention, the appellant refers to his submission to Mayo County Council at application stage dated 25th January 2025 and requests that this submission be taken into account. The appellant suggests that this net point of contention regarding climate impact is whether the measures described in the EIAR, Further Information, and grant of permission would be consistent with the national climate action plan.

Response To Paragraphs 1 - 6

As outlined in paragraph 2 of the third-party appeal, Section 9.7.3 of the EIAR does state that in the absence of mitigation the facility would lead to a moderate, significant adverse impact. However, the impact of a project should be assessed post-mitigation using the appropriate methodology.

In terms of climate guidance and methodology, the Institute of Environmental Management and Assessment (IEMA) Guidelines (2022) are recognised throughout Ireland and the UK as the authoritative guidance body on greenhouse gas (GHG) and climate impact assessment. The GHG assessment of the project was undertaken based on the principles outlined in IEMA Guidance (IEMA, 2022) as outlined in Section 9.2.8.1 of the EIAR. The guidance builds on previous guidance from IEMA with three significant principles:

1. When evaluating significance, all new GHG emissions contribute to a negative environmental impact; however, some projects will replace existing development or baseline activity that has a higher GHG profile. The significance of a project's emissions should therefore be based on its net impact over its lifetime, which may be positive, negative or negligible;
2. Where GHG emissions cannot be avoided, the goal of the EIA process should be to reduce the project's residual emissions at all stages; and
3. Where GHG emissions remain significant, but cannot be further reduced, approaches to compensate the project's remaining emissions should be considered.

As outlined in Section 9.7.3 of the EIAR, in reference to Principle 1 of IEMA Guidance (IEMA, 2022), the Proposed Development will replace activities which have a higher GHG profile. Data centre facilities represent a significantly more efficient means of data storage when compared to a distributed model of enterprise data storage by individuals and companies (or 'enterprise sites') by up to 80%[1].

As outlined in Section 9.7.3 of the EIAR, in reference to Principle 2 of IEMA Guidance (IEMA, 2022), a range of measures will be employed which will reduce GHG emissions and are in line with "best practice" as outlined in the IEMA guidance (IEMA, 2022) including the installation of PV panels and the investigation into the feasibility of a connection to a future district heating scheme.

[1] Masanet, Eric; Shehabi; Arman, Lei; Nuoa, Smith, Sarah; Koomey, Jonathan; "Recalibrating global data center energy-use estimates", Sciencemag.org, February 28, 2020, Vol. 367, Issue 6481; ("Expressed as energy use per compute instance, the energy intensity of global datacenters has decreased by 20% annually since 2010....").

As outlined in Section 9.7.3 of the EIAR, in reference to Principle 3, it is the intention of the applicant that measures be implemented in line with "best practice" as outlined in the IEMA guidance (IEMA, 2022). The backup generators will be able to run with Hydrotreated Vegetable Oil (HVO). The phasing of the development and the period taken to reach full capacity within each planned phase will result in the 'ramping up' of demand associated with the project over a number of years during the lifetime of the permission and thus the GHG emissions in the early years of the project will be an overestimation of reality.

In addition, the project is proximal to substantial renewable generation projects (i.e.: Glenora, Sheskin, Bellacorick, etc) and the tenants of the Project would seek to enter into CPPAs with renewable (wind) generators/producers, including direct/private wire as and when it becomes available. The Project is targeting the major technology companies as its tenant, such as Microsoft, Google, Meta, Amazon. All of these companies have made commitments to offset carbon associated with their data centres and are actively seeking CPPA opportunities to do so. The project will work with local renewable developments and its customers to facilitate such CPPAs, supporting the development of additional renewable power. This will offset residual GHG emissions associated with the Proposed Development, given that the energy consumed by the development on site would be matched by renewable energy generation.

Table 0.1 (Table 9.10 of Chapter 9 of the EIAR) showed the impact both pre and post mitigation. As outlined above the project will use "best practice" design measures and will be designed to incorporate as much HVO that is available. In addition, the project tenants will seek to enter into CPPAs to offset residual GHG emissions. With the implementation of these measures the impact of the proposed project, in line with the IEMA methodology (IEMA, 2022), will be a minor adverse, non-significant impact. Minor adverse is equivalent to slight under the EIAR terminology (EPA, 2022).

Table 0.1 GHG Emissions Associated With The Proposed Development Compared To Sectoral Emission Ceiling & ETS

Scenario	% Of 2030 ETS Total[Note 1]	% Of Electricity Emission 2030 Ceiling[Note 2]	Significance (Prior to mitigation)	Significance (After mitigation)
Do Something	0.006%	1.0%	Moderate Adverse	Minor Adverse

Note 1 ETS 2030 Total = 690.91 Million Tonnes CO_{2eq}

Note 2 Based on 2030

Paragraphs 7 - 8 - Questionable Reliability of the EIAR

The appellant suggests that the Climate Chapter (Chapter 9) of the EIAR is of questionable reliability in terms of the following:

a) Reference to the ETS and the Effort Sharing Regulations,

b) Carbon budget reductions in Table 9.1

c) Reference to ESB Network report entitled "Network for Net Zero – Delivering the Electricity Network for Ireland's Clean Electric Future" (ESB Networks, 2023)

d) Electricity GHG Emission Intensity

e) EPA GHG projection report (2023)

f) Typo in Table 9.9

Response To Paragraph 8 (point a above)

The third-party appellant suggests that the Climate Chapter (Chapter 9) of the EIAR is of questionable reliability in terms of the discussion around ETS and the Effort Sharing Regulations. As outlined in section 9.2.2 of Chapter 9 of the EIAR the workings of the ETS were clearly set out:

"9.2.2 Emission Trading System

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 Proposed Development). Under the ETS, there are no country-specific targets. The non-ETS sector includes all domestic GHG emitters which do not fall under the ETS and thus includes GHG emissions from transport, residential and commercial buildings and agriculture. In contrast to the ETS, 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.

As outlined in European Commission publication "*Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment*" (EC, 2013) the context of global or EU-wide emissions, the GHG emissions associated with the Proposed Development should be assessed in the context of the ETS. The approach that has been adopted at EU level is the EU Climate and Energy Package. In this regard, the EC guidance (EC, 2013) has stated that:

"The EU Emissions Trading System, the backbone of the EU mitigation effort, which sets a cap on emissions from the most polluting sectors including over 11,000 factories, power plants and other installations, including airlines. By 2020, the cap should result in a 21% reduction relative to 2005 levels. The EU ETS covers about 40% of all EU emissions." (EC, 2013)."

The chapter further discusses CAP24 and ETS and the relevant text is reproduced below:

"In relation to CAP24, under Section 11.2.1.1 EU Emission Trading System, it states:

"The EU ETS is an important mechanism to drive emissions reductions in Ireland. Revisions for the EU ETS proposed under the EU Fit for 55 package were formally approved in April 2023 and include significant changes that aim at strengthening the decarbonisation incentive in industry. EU ETS emissions are set to reduce by 62% (previously 43%) compared to 2005, further tightening the cap on all participants. In addition, while industrial emitters currently receive a proportion of free allocation of emissions permits, the updated EU ETS will see free allocation for many industries phased out from 2026, adding further upward pressure to the carbon price." (CAP24, page 191)."

Thus, Chapter 9 of the EIAR clearly outlined the obligations of industrial emitters including data centres and electricity generators who will supply electricity to the facility. Since the publication of the EIAR, Climate Action Plan 2025 has been published although CAP25 does state that "*Climate Action Plan 2025 builds upon last year's Plan by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings and it should be read in conjunction with Climate Action Plan 2024*". Thus, all policies outlined in CAP24 are still current policy.

Response To Paragraph 8 (point b above)

The appellant has identified a typo, which had no bearing on the conclusions, in Table 9.1 of the EIAR, shown as Table 0.2 below. The corrected version is reproduced below.

Table 0.2 5-Year Carbon Budgets 2021-2025, 2026-2030 and 2031-2035

Period	Mt CO_2eq	Emission Reduction Target
2021-2025	295 Mt CO_2eq	Reduction in emissions of 4.8% per annum for the first budget period.
2026-2030	200 Mt CO_2eq	Reduction in emissions of 8.3% per annum for the second budget period.
2031-2035	151 Mt CO_2eq	Reduction in emissions of 3.5% per annum for the third provisional budget.

Response To Paragraph 8 (point c above)

Reference to ESB Network report entitled "*Network for Net Zero – Delivering the Electricity Network for Ireland's Clean Electric Future*" (ESB Networks, 2023) and the use of the phrase "which outlines a glidepath to net zero by 2050".

In Section 3 (Page 15) of "Network for Net Zero – Delivering the Electricity Network for Ireland's Clean Electric Future" (ESB Networks, 2023), it is stated:

"The objective to provide a Net Zero Ready Distribution Network by 2040 is core to our strategy. The graphic below from University College Cork (UCC) / Marine and Renewables Energy Ireland (MaREI) shows the evolution of emissions reduction in Ireland on a pathway to a net zero energy system. The glidepath set out is in line with Ireland's statutory Carbon Budgets."

Thus, the wording in the Chapter 9 of the EIAR reflects the wording in the ESB Networks report and refers to Figure 9.3 of the EIAR which is reproduced below as Figure 1.

The appellant also challenges that the "figure 9.3" does not exist in the ESB Networks report. In the ESB Network report the figure is not given a figure number. In the Climate Chapter it is given a figure number of 9.3 to reflect the fact it is the third reference figure in the chapter as per standard norms.

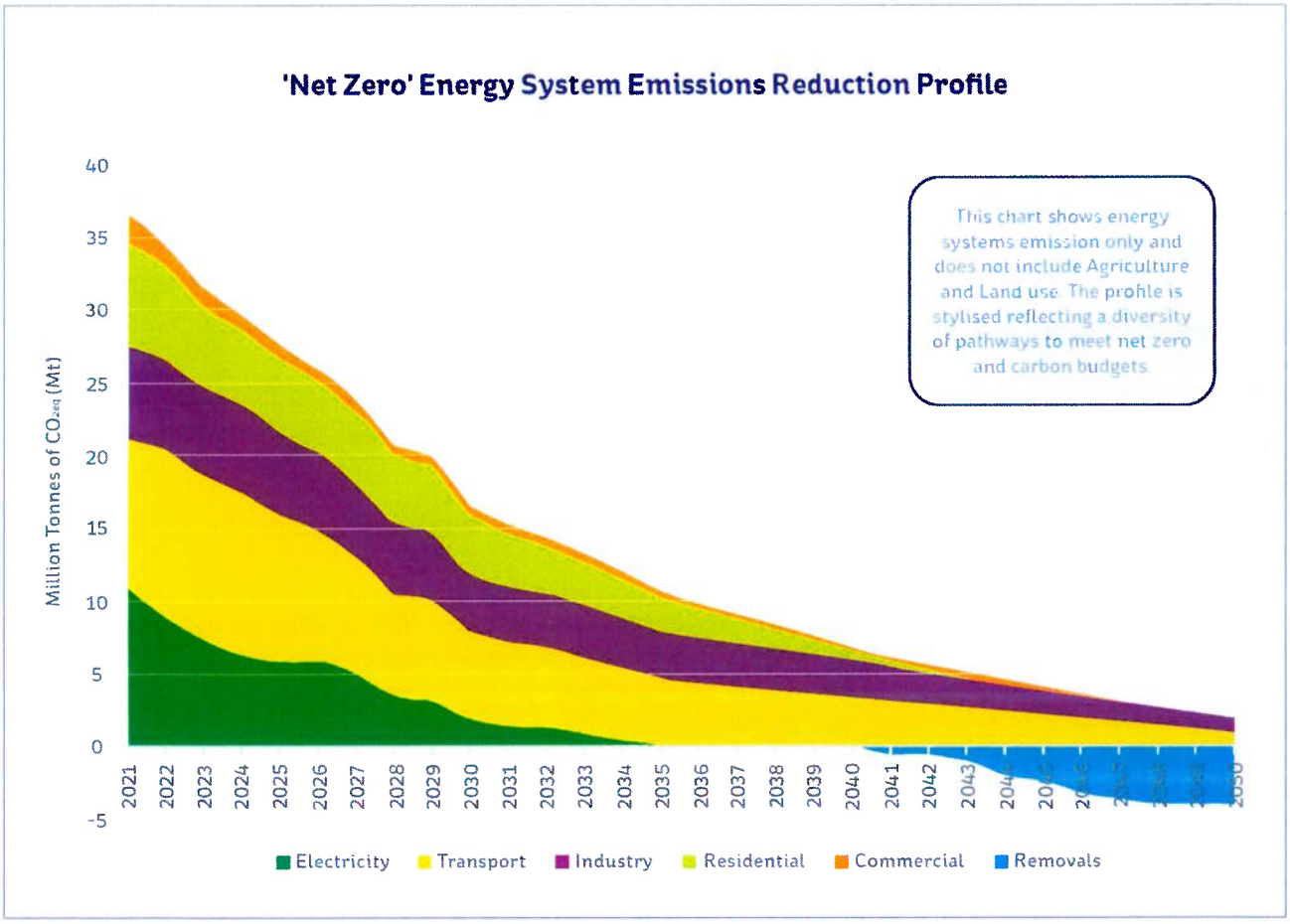


Figure 1 Net Zero Energy System Emissions Reduction Profile (UCC / MaREI) (ESB Networks, 2023)

Response To Paragraph 8 (point d above)

Electricity GHG Emission Intensity - Reference to SEAI (2023) in Table 9.3 of Chapter 9 of the EIAR refers to source of the carbon intensity value of 259 g CO_2 / kWh in 2023 and thereafter assuming linear interpolation to 100 g CO_2 / kWh by 2030 as noted in the footnote. Thus, the actual table is not a direct reproduction from a report but based on SEAI data from 2023.

Response To Paragraph 8 (point e above)

The interpretation of EPA GHG projection reports in relation to agriculture and animal numbers has been challenged. In response, the recently published EPA Report entitled "*Ireland's Greenhouse Gas Emissions Projections - 2024-2055*" (EPA, May 2025) has undertaken a sensitivity study in relation to herd numbers and compares agriculture WEM (With Existing Measures) with a WEM Sensitivity study (graphic reproduced below as Figure 2 (Figure 9 of the (EPA, 2025) report)). It states that:

> *"A sensitivity analysis of the With Existing Measures emissions scenario has been undertaken for the agriculture emissions projections based on alternative projected activity data that assumes stronger growth in agricultural activity levels. The resulting alternative scenario is presented in Figure 9 alongside the WEM scenario. It shows that stronger growth would likely lead to marginally higher emissions over the projected period.*
>
> *The sensitivity scenario examines the consequences of continued strong growth in the dairy herd accompanied by beef cow herd that is projected to contract at a slower rate than the rate of decline observed since the end of the milk quota regime in 2015." (EPA, 2025 Page 23)*

Figure 9: Sensitivity assessment of the Agriculture Sector under the *With Existing Measures* scenario out to 2030

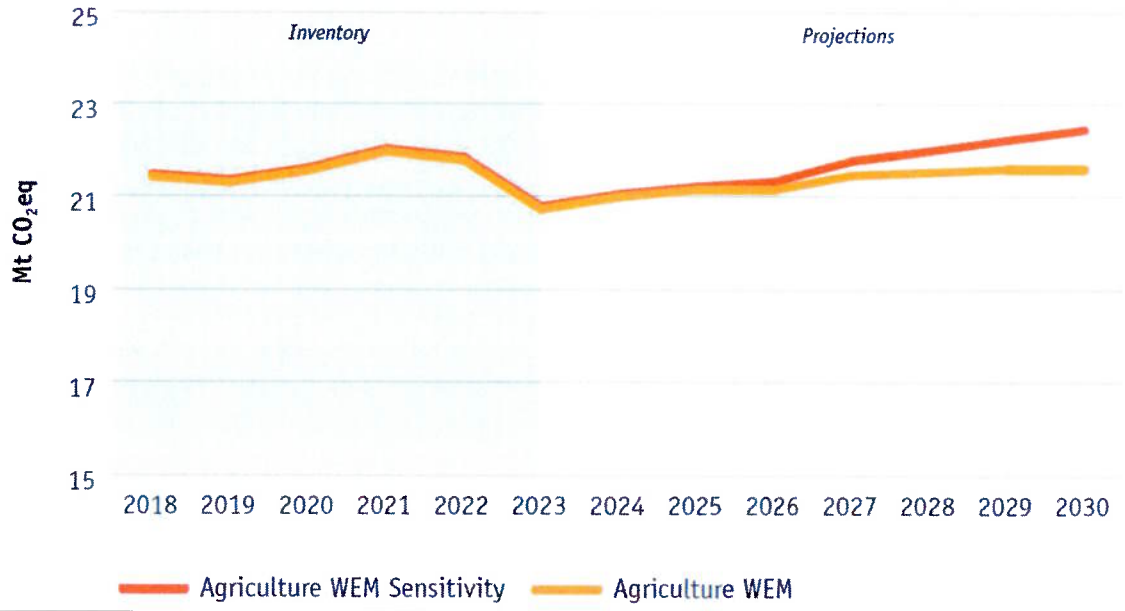


Figure 2 Sensitivity assessment of the Agriculture Sector under the With Existing Measures scenario out to 2030 (EPA, 2025)

Thus, the most recent data from the EPA suggests that it is uncertain as to whether agricultural emissions will actually increase or decrease by 2030.

Response To Paragraph 8 (point f above)

The third-party appellant has identified a typo in the percentages quoted in Table 9.9 of the EIAR which is now correct, as shown as Table 0.3 below. The error was due to a transposition error.

Table 0.3 *GHG Emissions (CO_{2eq}) for the Proposed Development (Tonnes CO_{2eq})*

Year	Electricity GHG Emissions (tonnes CO_2eq)	Back-Up Generator GHG Emissions (tonnes CO_2eq)	Total (tonnes CO_2eq)	% of 2030 Emission Trading System Target	% of 2030 Electricity Sectoral Emission Ceiling
2028	61150	1300	62450	0.009%	1.6%
2029	51599	1300	52899	0.006%	1.3%
2030	42048	1300	43348	0.006%	1.1%
2031	39946	1300	41246	0.006%	1.0%
2032	37843	1300	39143	0.006%	1.0%
2033	35741	1300	37041	0.005%	0.9%
2034	33638	1300	34939	0.005%	0.9%
2035	31536	1300	32836	0.005%	0.8%

Paragraph 9 - Misleading Narrative on Progress to National Targets

The appellant suggests that "Section 9.3.1 and 9.3.3. of the EIAR paint a rather positive picture of the prospects for achieving national GHG targets".

Response To Paragraph 9

The GHG emission factor of electricity used in the assessment is based on current reported levels (Year 2023) with the assumption that the GHG emission factors have been assumed to decrease in a linear (straight-line) fashion to reach 100 gCO_2/kWh by 2030 for the purposes of this assessment. The government policy is outlined in the relevant Climate Action Plans including both CAP24 and CAP25 which states a target of 80% renewables by 2030, which is approximately equivalent to an emission rate of 100 gCO_2/kWh by 2030. Thus, both CAP25 (DECC, 2025) and ESB projections are based on an 80% renewable fraction in 2030.

It is noted that the recently published EPA "*Ireland's Greenhouse Gas Emissions Projections - 2024-2055*" (dated May 2025) is less optimistic on reaching the 80% renewable targets. The EPA has predicted, for the With Additional Measures (WAM) scenario that a renewable fraction in the national grid of 68.3% will be obtained rather than 80% renewables. The SEAI Interim National Energy Balance 2024 confirms that GHG emissions from electricity reduced by 7.5% compared to 2023 (SEAI, 2025)[2].

The EPA report "*Ireland's Greenhouse Gas Emissions Projections- 2024-2055*" (EPA, May 2025) also suggests that the 2021 – 2025 and 2026 – 2030 Carbon budgets will be difficult to comply with. Likewise, the report suggests that the 2021 – 2025 and 2026 – 2030 sectoral emission ceilings will be difficult to comply with although in relation to the electricity sector the report confirmed that it is likely to achieve the first sectoral emission ceiling target:

> *"The sectoral ceilings projected to be achieved in the first budget period (2021-25) are in the Electricity, Buildings and 'Other' sectors"* (EPA, 2025 (Section 3.2.2))

The report does note, however, that currently it is projected that the electricity sector is unlikely to achieve the second sectoral emission ceiling period (2026-2030) target.

The report outlined two scenarios to project into the future:

- With Existing Measures (WEM) - a projection of future emissions based on currently implemented measures and actions committed by Government which are in place by the end of 2023.
- With Additional Measures (WAM) - a projection of future emissions based on currently implemented measures and actions committed by Government including all WEM measures plus those included in Government plans but not yet implemented.

However, in relation to electricity, there are a number of measures which have been excluded from the EPA WEM and WAM scenarios as discussed above. These excluded measures include:

- CAP25 has projected 9 GW onshore wind, 5 GW offshore wind and 8 GW solar PV whilst the EPA has assumed in their projections that in reality, by 2030, there will be 7.1 GW onshore wind, 2.7 GW offshore wind and 6.3 GW solar PV.
- New flexible gas fired generation of 1.4 GW was assumed by 2030 compared to 2 GW in CAP25.

[2] https://www.seai.ie/news-and-events/news/seai-interim-national-energy-balance-2024

- The CAP25 policy of 2 GW offshore wind for green hydrogen post-2030 is also not included in the EPA projections.

- The CAP25 policy of zero-emission gas-fired generation from biomethane and green hydrogen (via 2 GW offshore wind) post-2030 is also not included in the EPA projections.

Thus, in projecting forward to the opening year and to 2030 when compliance with the electricity emission ceiling is determined, there is a range of possible baseline GHG levels depending on whether some or all of the proposed measured are implemented in a timely manner.

A recent report from MaREI (MaREI, Sept 2024) states that the Electricity sector has an emission ceiling of 40 Mt CO_2eq for the first carbon budget period (2021–2025), with the EPA's 2023 provisional greenhouse gas inventory reporting that 67.9% of the sectoral emissions ceiling has been used in the first 3 years of the first carbon budget. The recently published *Climate Change Advisory Board Annual Review 2025: Electricity* (CCAB, 2025), based on the EPA's 2023 data combined with the latest emissions data from the EU ETS for 2024 estimated that 83.6% of the electricity sectoral emissions ceiling has been used in the first 4 years of the five-year sectoral emissions period. Thus, 2024 used 15.7% of the sectoral budget (i.e. 83.6% - 67.9% = 15.7%) and given that energy-related emissions have fallen each year for the last 3 years, and are down 11% compared to 2021 levels (SEAI, 2025) it is likely that 2025 will have emissions of a similar (or lower) magnitude to 2024 and thus it is likely that the first electricity sectoral budget period (2021-2025) will be approximately 99% of the budget and thus in compliance. This analysis has recently been supported by work undertaken by MaREI at the University of Cork in terms of both sectoral emission ceilings and the first carbon budget[3]

"Ireland is currently on track to meet the first carbon budget (CB1) when we compare the last three years of data with a greenhouse gas emissions pathway that aligns with CB1. The CB1 pathway ensures Ireland remains within the statutory target of 295 MtCO_2eq in the time period 2021-2025" (MaREI, Sept 2024).

As noted above the EPA report "*Ireland's Greenhouse Gas Emissions Projections – 2024 – 2055"* (EPA, 2025) has predicted that the first carbon budget is unlikely to be complied with. However, this report is based on data up to the end of 2023. The MaREI (Sept, 2024) report takes into account more recent 2024 data and thus may be more presentative of current projections.

Paragraph 10 – 16 - Invalid Mitigation Claims

The appellant suggests that the following mitigation claims below in paragraphs 11 - 16 are invalid.

Paragraph 11 - False assumption of automatic alignment

Response To Paragraph 11

For the Proposed Development, the quantity of CPPA purchases required may vary year on year based on a range of factors including the rate of penetration of renewable energy into the national grid, the increase in power requirements from data centres, industry and other users and the amount of imported electricity that occurs in any one year. The Proposed Developer has committed to ensuring that the facility operates in a net zero environment and will ensure that GHG emissions associated with the energy consumed by the development on site is met by new renewable energy generation in line with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) irrespective of the total amount that is required in any one year. The third party appellant argues that the facility itself will increase the GHG emission factor of electricity above the assumed 100 gCO_2/kWh by 2030. However, if this occurs, and the impact of 58MW on the grid will be very small, the resultant minor increase in the GHG emission intensity of the grid will lead to a slightly more onerous CPPA requirement than would otherwise be the

[3] https://acrobat.adobe.com/id/urn:aaid:sc:EU:9eb53277-d503-4d12-944f-3855a47f366f

case. In the overall scale, the facility will use approx. 420MWh compared to a gross electricity in Ireland in 2023 of 34,600 MWh[4] and thus the impact of electricity grid of the facility entering the market will be very limited.

Paragraph 12 - No mechanism in the EU ETS to ensure that Ireland's legally binding national GHG reduction targets are met.

Response To Paragraph 12

The EU ETS is a EU-wide scheme that is independent of national targets although both Ireland and the wider EU are committed to net zero GHG emissions by 2050. The Climate Chapter of the EIAR clearly states that the EU ETS and the national targets under the Carbon Budgets and Sectoral Emission Ceilings are separate from one another. However, reductions in electricity under the ETS will be directly relevant to decarbonizing the Irish economy as outlined below and in recent government publications.

In relation to the EU ETS, the Long-term Climate Action Strategy states that "*A strong price signal, as part of a reformed EU ETS, including progressively more restrictive rules on how many allowances will be available within the EU ETS, is expected to drive decarbonisation over the coming decade by increasing the cost to firms in the EU ETS of doing nothing to reduce their emissions*" (DECC, 2023).

In addition, as outlined in the EU Climate Law (EU, 2021) under the Item (13): "*The EU ETS is a cornerstone of the Union's climate policy and constitutes its key tool for reducing greenhouse gas emissions in a cost-effective way.*"

The 2025 CAP states that in regard to industry (this also applies to electricity generators):

"A key target for the industry sector is to reduce emissions .....80% of the sector's emissions fall within EU ETS. This means Ireland's significant industrial emitters comprising of manufacturing companies, primarily in the cement, alumina, food and beverage, pharmaceutical and chemicals sectors are motivated to reduce emissions if they are to remain competitive as the price of EU ETS allowances rise and the volume of free allocations is reduced." (2025 CAP, page 80).

Thus, the indirect electricity emissions and the direct emissions from backup HVO generators will operate within the ETS and will both require greenhouse gas permits under the ETS in order to operate and thus the GHG emissions associated with the Proposed Development will be in line with Section 13.3.5 of the 2025 CAP which stresses the importance of the EU ETS in reducing industry GHG emissions.

In addition, as outlined in Section 13.3.2.9 Emission Trading System, the CAP24[5] states:

"The EU ETS is a cornerstone of the EU's policy to combat climate change and it is a key tool for reducing greenhouse gas emissions cost-effectively The EU ETS operates on a "cap and trade" principle. The cap is an absolute limit on the level of emissions across the EU ETS marketplace, and all participants must either reduce their emissions in line with their emission allowance, or purchase permits from another market participant that has excess emission allowances to trade. The EU ETS is an important mechanism to drive emissions reductions in Ireland. Revisions for the EU ETS proposed under the EU Fit for 55 package were formally approved in April 2023 and include significant changes that aim at strengthening the decarbonisation incentive in industry. EU ETS emissions are set to reduce by 62% (previously 43%) compared to 2005, further tightening the cap on all participants. In addition, while industrial emitters currently receive a proportion of free allocation of emissions permits, the updated EU ETS will see free

[4] energy-in-ireland-2024.pdf

[5] "*Climate Action Plan 2025 builds upon last year's Plan by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings and it should be read in conjunction with Climate Action Plan 2024*". Climate Action Plan 2025

allocation for many industries phased out from 2026, adding further upward pressure to the carbon price." (CAP24, page 191).

Thus, the indirect electricity emissions and the direct emissions from backup generators will both require greenhouse gas permits under the ETS in order to operate and thus the GHG emissions associated with the Proposed Development will be in line with Section 13.3.2.9 of CAP24 which stresses the importance of the EU ETS in reducing industry GHG emissions.

Paragraph 13 - Inadequate embedded mitigation measures.

Response To Paragraph 13

In terms of climate guidance and methodology, the Institute of Environmental Management and Assessment (IEMA) Guidelines (2022) are recognised throughout Ireland and the UK as the authoritative guidance body on greenhouse gas (GHG) and climate impact assessment. The GHG assessment of the project was undertaken based on the principles outlined in IEMA Guidance (IEMA, 2022). The guidance builds on previous guidance from IEMA with three significant principles:

1. When evaluating significance, all new GHG emissions contribute to a negative environmental impact; however, some projects will replace existing development or baseline activity that has a higher GHG profile. The significance of a project's emissions should therefore be based on its net impact over its lifetime, which may be positive, negative or negligible;
2. Where GHG emissions cannot be avoided, the goal of the EIA process should be to reduce the project's residual emissions at all stages; and
3. Where GHG emissions remain significant, but cannot be further reduced, approaches to compensate the project's remaining emissions should be considered.

As outlined in Section 9.7.3 of the EIAR, in reference to Principle 1 of IEMA Guidance (IEMA, 2022), the Proposed Development will replace activities which have a higher GHG profile. Data centre facilities represent a significantly more efficient means of data storage when compared to a distributed model of enterprise data storage by individuals and companies (or 'enterprise sites') by up to 80%[6].

As outlined in Section 9.7.3 of the EIAR, in reference to Principle 2 of IEMA Guidance (IEMA, 2022), a range of measures will be employed which will reduce GHG emissions and are in line with "best practice" as outlined in the IEMA guidance (IEMA, 2022) including the installation of PV panels and the investigation into the feasibility of a connection to a future district heating scheme.

As outlined in Section 9.7.3 of the EIAR, in reference to Principle 3, it is the intention of the applicant that measures be implemented in line with "best practice" as outlined in the IEMA guidance (IEMA, 2022). The backup generators will be able to run with Hydrotreated Vegetable Oil (HVO). The phasing of the development and the period taken to reach full capacity within each planned phase will result in the 'ramping up' of demand associated with the project over a number of years during the lifetime of the permission and thus the GHG emissions in the early years of the project will be an overestimation of reality.

In addition, the project is proximal to substantial renewable generation projects (i.e.: Glenora, Sheskin, Bellacorick, etc) and the tenants of the Project would seek to enter into CPPAs with renewable (wind) generators/producers, including direct/private wire as and when it becomes available. The Project is targeting the major technology companies as its tenant, such as Microsoft, Google, Meta, Amazon. All of these companies have made commitments to offset carbon associated with their data centres and are

[6] Masanet, Eric; Shehabi; Arman, Lei; Nuoa, Smith, Sarah; Koomey, Jonathan; "Recalibrating global data center energy-use estimates", Sciencemag.org, February 28, 2020, Vol. 367, Issue 6481; ("Expressed as energy use per compute instance, the energy intensity of global datacenters has decreased by 20% annually since 2010....").

actively seeking CPPA opportunities to do so. The project will work with local renewable developments and its customers to facilitate such CPPAs, supporting the development of additional renewable power. This will offset residual GHG emissions associated with the Proposed Development, given that the energy consumed by the development on site would be matched by renewable energy generation.

Paragraph 14 - False claim for mitigation of renewable gas

Response To Paragraph 14

As outlined in Section 2.3.3.4 of the EIAR a gas Above Ground Installation (part of a future planning approval) would be located in the southwest of the facility to allow for gas connection when this becomes available. The future gas pipeline would be subject to an application to the Commission for Regulation of Utilities (CRU) under Section 39A of the Gas Act 1976 (as amended). Thus, no assessment of the facility has been undertaken for natural gas or biomethane.

As outlined in Section 9.2.3 of the EIAR, in relation to biomethane, it is highlighted that the gas should be prioritized for high temperature heat in manufacturing and other difficult to abate emissions:

- *"Utilisation of biomass, and low and zero emission gas as key fuels for decarbonisation, noting that these are limited resources and priority will be given to its use in areas where alternative methods of decarbonisation (e.g. electrification) are not commercially or technically viable. The Biomethane Working Group has started to develop a National Biomethane Strategy, likely to be published in Q1 2024, which will set out the pathway to supplying up to 5.7 TWh of biogenic methane by 2030. This gas will be prioritised for difficult to abate emissions where alternatives are not readily available, such as high temperature heat in manufacturing."*

Paragraphs 15 & 16 - IEMA Guidance – unsupported mitigation claims & Simplistic CPPA mitigation claims.

Response To Paragraphs 15 & 16

The CPPA Roadmap[7] states: "*Additionality and Avoiding Greenwashing: If CPPAs simply purchase certificates from projects that would have existed anyway, especially those that have already been funded under schemes supported by the PSO levy (REFIT schemes or the RESS), they may not contribute to additional decarbonisation, which would not achieve the benefits of such contracts for all electricity users and harm public trust. CPPAs for* ***new*** *non-subsidised or repowered projects should be prioritised.*" [Emphasis added]

The CPPA Roadmap itself notes that "*keeping RESS and CPPAs separate leads to clearer additionality for CPPAs*". The stipulation that any CPPA related to the Proposed Development would not be subject to any direct government financial subsidy, consumer, or public subsidy ensures that any renewable development subject to such a CPPA does not benefit from receipt of subsidy under the Renewable Electricity Support Scheme (RESS), in line with the CPPA Roadmap.

The Institute of Environmental Management and Assessment (IEMA) guidance document – *Pathways to Net Zero - Using the IEMA GHG Management Hierarchy* (Nov 2020) revised the IEMA GHG Management Hierarchy as shown in Figure 3 below to include CPPAs under the category of "*substitution*" within the Hierarchy:

[7] renewable-electricity-corporate-power-purchase-agreements-roadmap.pdf

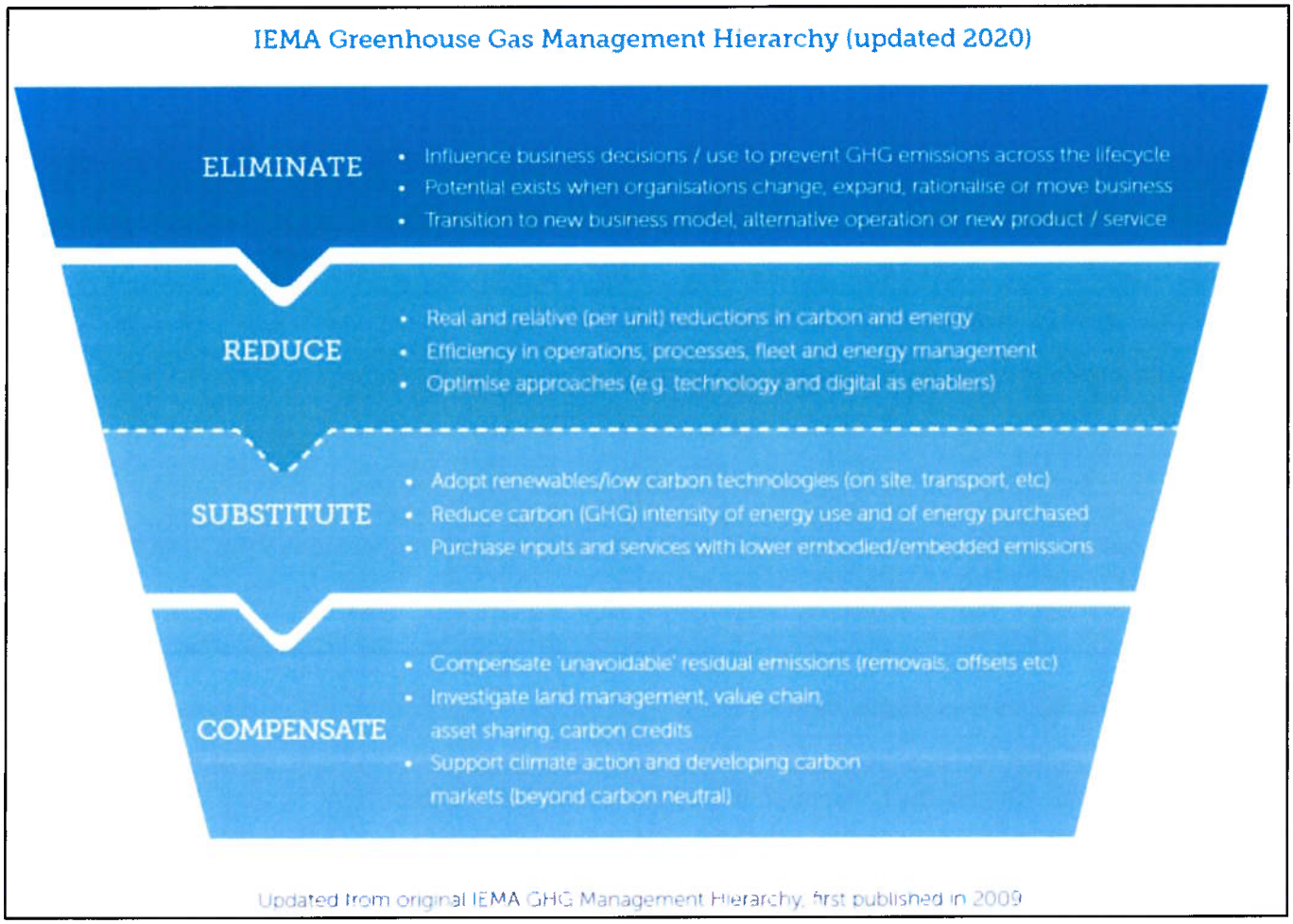


Figure 3 IEMA Greenhouse Gas Management Hierarchy (IEMA, 2020)

In relation to the use of CPPAs, the IEMA 2020 guidance states, on Page 5, the following (bold added):

> *"Purchased green electricity tariffs (also green gas) are increasingly being considered within net-zero approaches. In earlier versions of the Hierarchy these tariffs only appeared within COMPENSATE. This is still the case for market-based approaches that use certificates where additionality or quality thresholds are poor, or hard to substantiate. The hierarchy does now allow for higher quality energy tariff purchases within the SUBSTITUTE line, reflecting developing practice and some improved purchasing arrangements (e.g.* ***higher quality procurement or quasi-investments via power purchase agreements****)."*

Thus, CPPAs are now recommended by IEMA (IEMA, 2020) as an appropriate project-specific "*substitution*" mitigation measure alongside measures such as adopting renewable technologies and reducing the carbon intensity of energy used.

For further clarity on the position of IEMA regarding CPPAs and mitigation, the *IEMA Assessing Greenhouse Gas Emissions and Evaluating their Significance 2nd Edition* (IEMA, Feb 2022) has recently stated, on Page 9, that:

> *"GHG mitigation is best achieved by taking a planned and focused approach following the IEMA GHG management hierarchy principles."*

When projecting into the future, there is associated uncertainty as to the penetration of renewable energy in the national grid. However, the use of CPPAs can be viewed as allowing for this inherent uncertainty

in future years as the CPPA will match the actual GHG emissions regardless of the quantity of emissions in any one year and the time period in which they occur whilst the operation of both indirect electricity and direct emissions will continue to operate within the ETS which has committed to achieving net zero by 2050. Thus, even if the national renewable targets are not achieved on time, the facility will ensure that the CPPAs match the GHG emissions from the electricity used to power the Proposed Development on an annual basis to ensure the facility remains net-zero in terms of operational GHG emissions. The Proposed Developer has committed to ensuring that the facility operates in a net zero environment and will ensure that energy consumed by the development on site is met by new renewable energy generation in line with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) irrespective of the total amount that is required in any one year.

Paragraphs 17 – 20 - Invalid GHG Calculations Based On Grid Emission Factors

Response To Paragraphs 17 – 20

The appellant suggests that the development should not take into account the GHG intensity of the electricity grid, but to assume that the GHG intensity of the grid should be considered to be 100% fossil fuel and ignore the physical reality on the ground.

If one where to ignore the actual inputs into the electricity grid network, the Proposed Developer would be expected to, for example, mitigate the import of electricity from abroad which has a GHG emission factor of zero in Ireland as outlined below.

The Celtic Interconnector which will link the French and Irish grids with a capacity of 700MW will come onstream in 2026[8]. The Energy In Ireland 2023 report (SEAI, 2024)[9] states that:

> *"In the first 9 months of 2022, Ireland imported 1.2% of its electricity supply through interconnectors with mainland UK and Northern Ireland. One year later, in the first 9 months of 2023, Ireland had imported 9.1% of its electricity supply." (Page 18)*

The Energy In Ireland 2023 report (SEAI, 2024) clarifies that:

> *"The increase in net import of electricity across the interconnector between GB and Ireland began in March 2023 and coincided with several shifts in the GB electricity market: a steep drop in the UK carbon price with respect to that in the EU, an overall decrease in generation from fossil fuel in GB, and a significant increase in imports to GB via its other interconnectors (from France, Netherlands, Belgium and Norway). These and other market factors combined to increase imports of electricity through the interconnectors to Ireland from the UK (specifically GB), while reducing the quantity of electricity generated in Ireland.*
>
> *The overall effect of the increased use of imported electricity has acted to displace fossil-based generation in Ireland in 2023 and has significantly reduced Ireland's GHG emissions from electricity generation. In terms of the national carbon budgets, electricity imported into Ireland is 'emission free'. Any emissions are counted in the country that generates the electricity, not the country that imports and uses the electricity." (Page 18)*

The (SEAI, 2025)[10] has confirmed that the value for 2024 is that 14% of electricity was imported.

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[8] Celtic Interconnector | Projects | EirGrid

[9] Energy-in-Ireland-2023.pdf

[10] National Energy Balance | Key Publications | SEAI

The reality is the total amount of renewable energy generation that is required to be purchased may vary year on year based on a range of factors including the rate of penetration of renewable energy into the national grid and the amount of imported electricity that occurs in any one year. The Proposed Developer has committed to ensuring that the facility operates in a net zero environment and will ensure that energy consumed by the development on site is met by new renewable energy generation in line with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) irrespective of the total amount that is required in any one year.

Paragraph 21 – Energy Efficiency Directive (EED)

Response To Paragraph 21

In terms of energy efficiency, as outlined in Section 9.7.3 of the EIAR, the Proposed Development will replace activities which have a higher GHG profile. Data centre facilities represent a significantly more efficient means of data storage when compared to a distributed model of enterprise data storage by individuals and companies (or 'enterprise sites'). Data centres are more energy efficient than enterprise sites due to comprehensive efficiency central to the design of the Proposed Development. In a June 2020 report, the International Energy Agency noted:

"Hyperscale data centres are very efficient large-scale cloud data centres that run at high capacity, owing in part to virtualisation software that enables data centre operators to deliver greater work output with fewer servers. The shift away from small, inefficient data centres towards much larger cloudand hyperscale data centres is evident in the shrinking share of data centre infrastructure in total energy demand..."[11].

A study published in 2020 by Science[12] Magazine, found that while cloud computing productivity has grown globally by 550% between 2010 and 2018, energy consumption rose in tandem during the same period by just 6%, demonstrating the energy efficiency improvements of the industry, most notably by hyperscale data centres, as per the current project. A report from the international Energy Agency (IEA) entitled "Data Centres & Data Transmission Networks (IEA, 2021) found that while global internet traffic surged by more than 40% in 2020, this strong growth in demandfor data centre services continues to be mostly offset by ongoing efficiency improvements for data centre infrastructure as shown in Figure 9.9 of Chapter 9 of the EIAR (shown as Figure 4 below).

[11] IEA Data Centres and Data Transmission Networks – June 2020

[12] Masanet, Eric; Shehabi; Arman, Lei; Nuoa, Smith, Sarah; Koomey, Jonathan; "Recalibrating global data center energy-use estimates", Sciencemag.org, February 28, 2020, Vol. 367, Issue 6481; ("Expressed as energy use per compute instance, the energy intensity of global datacenters has decreased by 20% annually since 2010....").

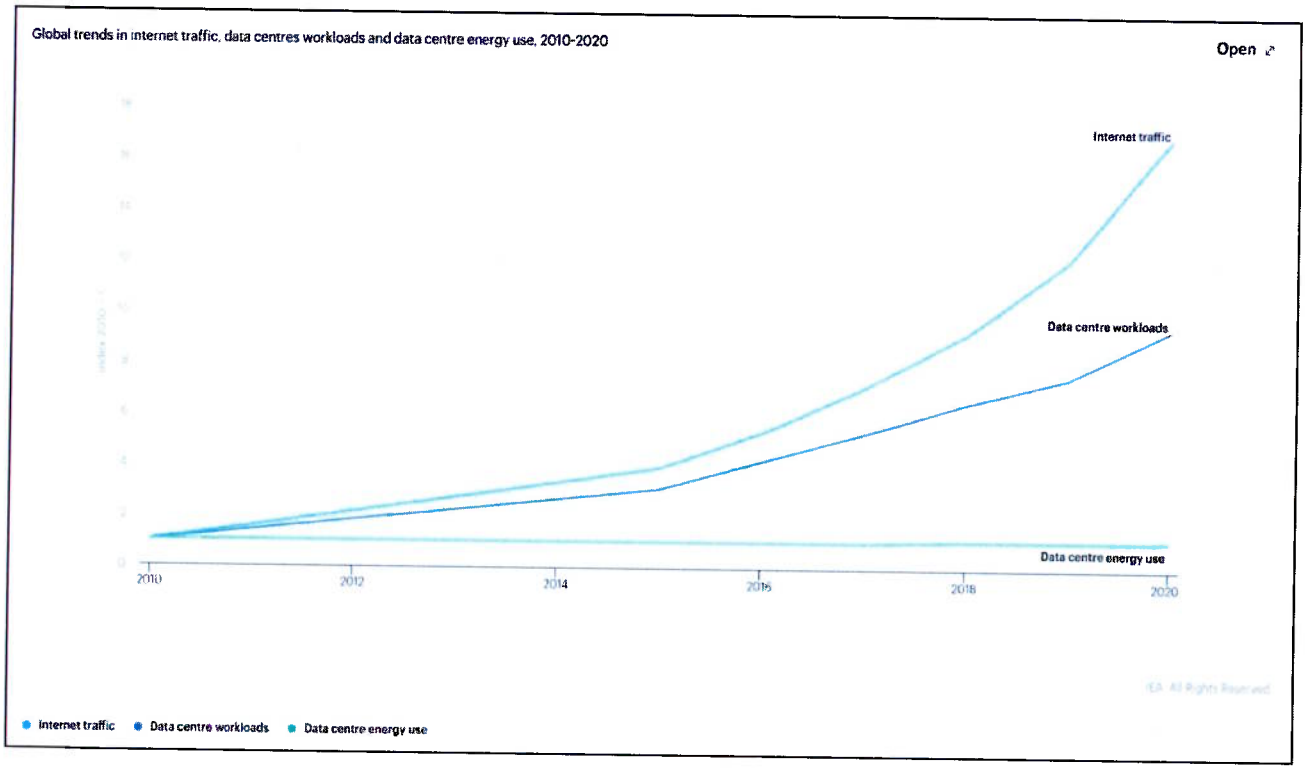


Figure 4 Global Trends In Internet Traffic, Data Centres Workloads & Data Centre Energy Use, 2010 – 2020 (IEA, 2021)

In the wider context, data centres are approximately 80% more efficient than on-premises servers and the associated GHG savings have not been accounted for in the current analysis[5].

In addition, a range of measures will be employed which will reduce GHG emissions and are in line with "best practice" as outlined in the IEMA guidance (IEMA, 2022) including the following energy efficiency measures.

- Artificial lighting will consist of energy efficient LED luminaires with the use of natural daylight as much as possible through the building design.
- The plant proposes to use recirculated air for Heating Ventilation and Air Conditioning (HVAC) where possible.
- A closed loop chilled water system will be used that will not consume water so there will be no impact on the local water networks aside from domestic use on admin block.
- The PUE will be annualised to be below 1.19
- PV solar panels will be installed onsite with 50kW of input.

Paragraph 22 – Unsustainable Growth in Data Centre Power Demand

Response To Paragraph 22

In terms of data centre power demand versus renewables, research by Prof. Hannah Daly in UCC has found that over the period 2007 to 2023[13], as outlined in Figure 5 below., that wind power has outpaced data centre demand every year over the period 2013 – 2023.

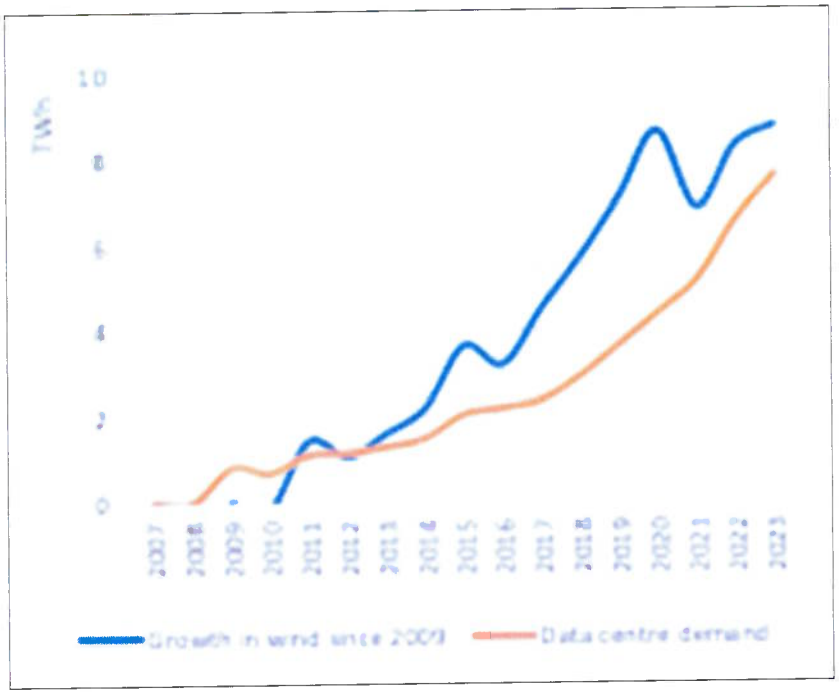


Figure 5 Growth in wind since 2009 vs data centre demand.

Paragraphs 23 & 24 - FI Item 1 relating to automatic alignment

Response To Paragraphs 23 & 24

For the Proposed Development, the quantity of CPPA purchases required may vary year on year based on a range of factors including the rate of penetration of renewable energy into the national grid, the increase in power requirements from data centres, industry and other users and the amount of imported electricity that occurs in any one year. The Proposed Developer has committed to ensuring that the facility operates in a net zero environment and will ensure that GHG emissions associated with the energy consumed by the development on site is met by new renewable energy generation in line with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) irrespective of the total amount that is required in any one year. The argument that the facility itself will increase the GHG emission factor of electricity above the assumed 100 gCO_2/kWh by 2030 will lead to a more onerous CPPA requirement than would otherwise be the case. In the overall scale, the facility will use approx. 420MWh compared to a gross electricity in Ireland in 2023 of 34,600 MWh[14] and thus the impact of electricity grid of the facility entering the market will be limited.

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[13] Ireland's energy trends since 1990

[14] energy-in-ireland-2024.pdf

Paragraphs 25 & 26 - FI Item 1 relating to excess wind energy

Response To Paragraphs 25 & 26

Please refer to JSA Report.

Paragraphs 27 - 32 - FI Item 1 relating to additional renewable generation.

Response To Paragraphs 27 – 32

The Proposed Developer has committed to ensuring that the facility operates in a net zero environment and will ensure that GHG emissions associated with the energy consumed by the development on site is met by new renewable energy generation in line with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) irrespective of the total amount that is required in any one year.

As outlined in Section 9.7.3 of the EIAR, the project is proximal to substantial renewable generation projects (i.e.: Glenora, Sheskin, Bellacorick, etc) and the tenants of the Project would seek to enter into CPPAs with renewable (wind) generators/producers, including direct/private wire as and when it becomes available. The Project is targeting the major technology companies as its tenant, such as Microsoft, Google, Meta, Amazon, Oracle, Coreweave, Mistral. All of these companies have made commitments to offset carbon associated with the data centres and are actively seeking CPPA opportunities to do so. The project will work with local renewable developments and its customers to facilitate such CPPAs, supporting the development of additional renewable power. This will offset residual GHG emissions associated with the Proposed Development, given that the energy consumed by the development on site would be matched by renewable energy generation.

In addition, as outlined in the response to paragraph 22, in terms of data centre power demand versus renewables, research by Prof. Hannah Daly in UCC has found that over the period 2007 to 2023[15], as outlined in Figure 5 above, that wind power has outpaced data centre demand every year over the period 2013 – 2023.

Paragraph 33 – Grid connection capacity.

Response To Paragraph 33

Please refer to JSA Report.

Paragraph 34

FI Item 2 relating to cumulative impact in terms of GHG emissions.

Response To Paragraph 34

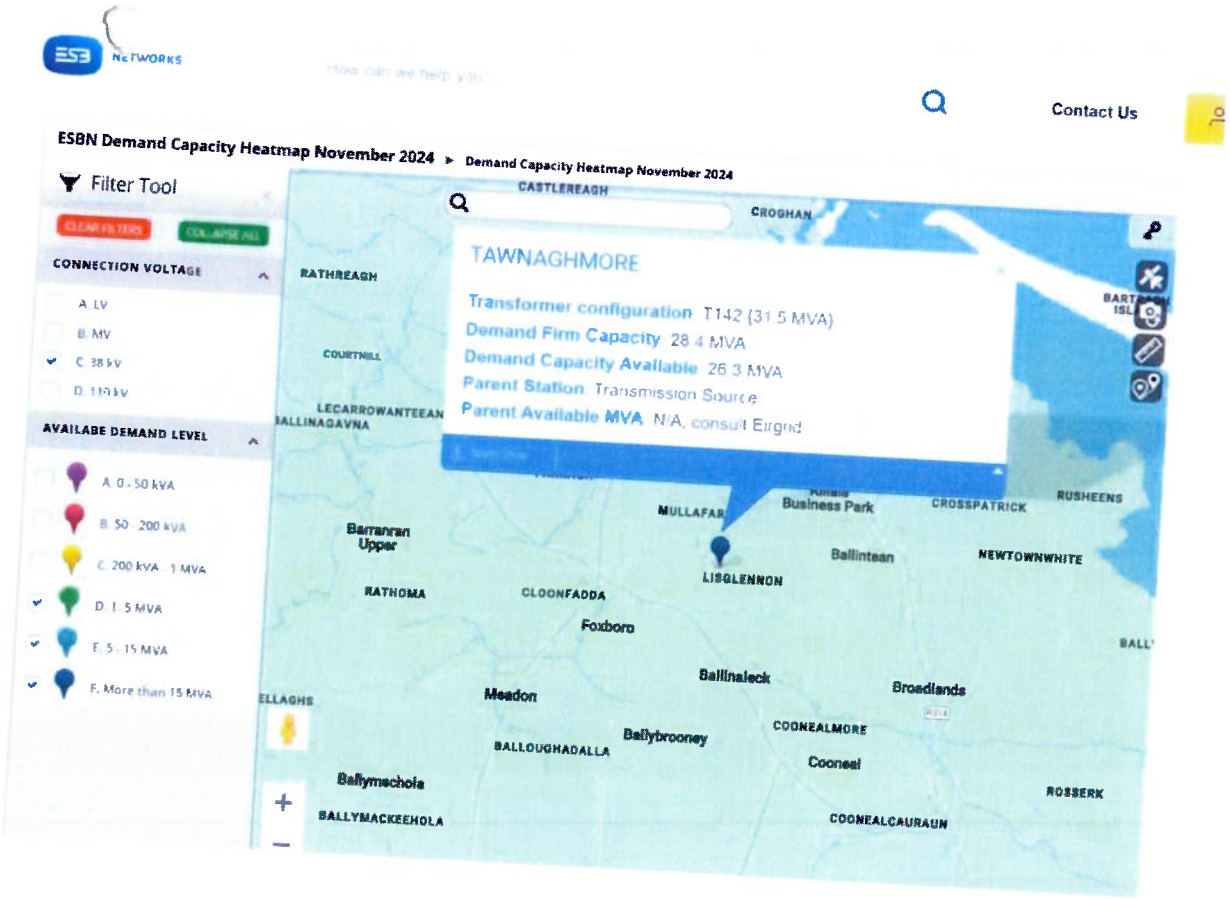
As outlined in Section 9.2.4 of the EIAR, the guidance from the Institute of Environmental Management and Assessment (IEMA) Guidelines (2022) which are recognised throughout Ireland and the UK as the authoritative guidance body on greenhouse gas (GHG) and climate impact assessment is that when considering the cumulative assessment, all global cumulative GHG sources are relevant to the effect on climate change. As a result, the effects of GHG emissions from specific cumulative projects therefore in general should not be individually assessed. This is due to the fact that there is no basis for selecting any particular (or more than one) cumulative project that has GHG emissions for assessment over any other (IEMA, 2022).

[15] Ireland's energy trends since 1990

Paragraphs 35 - 45

Please refer to JSA Report.

APPENDIX 6: ESBN DEMAND CAPAPACITY HEATMAP FROM NOVEMBER 2024


ESB NETWORKS
Contact Us
ESBN Demand Capacity Heatmap November 2024
Demand Capacity Heatmap November 2024
Filter Tool
CLEAR FILTERS
COLLAPSE ALL
CONNECTION VOLTAGE
A. LV
B. MV
C. 38 kV
D. 110 kV
AVAILABE DEMAND LEVEL
A. 0 - 50 kVA
B. 50 - 200 kVA
C. 200 kVA - 1 MVA
D. 1 - 5 MVA
E. 5 - 15 MVA
F. More than 15 MVA
CASTLEREAGH
CROGHAN
RATHREAGH
COURTHILL
LECARROWANTEEAN
BALLINAGAVNA
TAWNAGHMORE
Transformer configuration T142 (31.5 MVA)
Demand Firm Capacity 28.4 MVA
Demand Capacity Available 26.3 MVA
Parent Station Transmission Source
Parent Available MVA N/A, consult Eirgrid
Business Park
CROSSPATRICK
RUSHEENS
MULLAFAR
Barranran Upper
Ballintean
NEWTOWNWHITE
LISGLENNON
RATHOMA
CLOONFADDA
Foxboro
Ballinaleck
Broadlands
Meadon
COONEALMORE
Ballybrooney
BALLOUGHADALLA
Cooneal
Ballymachoia
ROSSERK
BALLYMACKEEHOLA
COONEALCAURAUN

APPENDIX 7: LETTERS OF SUPPORT FROM RENEWABLE ENERGY PROVIDERS

Ballina Municipal District
(Mayo County Council)
Ballina Civic Offices,
Arran Place,
Ballina,
Co Mayo
F26 E5D7

ABO Energy Ireland Ltd.
Unit 3, Aspen Court
Cornelscourt
Dublin 18
D18 TD56
Ireland
phone: +353 (0) 1 207 0452

Dr. Joe Jellie
phone: +353 (0) 1 207 0452
joe.jellie@aboenergy.com

4 April 2025

Subject: Mayo Data Hub Limited, Data Centre a Mullafarry and Tawnaghmore Upper, Killala

Planning Ref: 2460708

Dear Elected Members,

We are writing to add our support to the proposal by Mayo Data Hub Limited for development of a data centre at Killala.

North County Mayo has significant potential for renewable energy generation, in particular onshore wind energy, but is restricted from reaching this potential due to limitations in grid transmission infrastructure. Development of a large energy user, such as a data centre, would complement the abundant local renewable energy resource.

Data centres are an important part of our digital economy and locating them outside of the Dublin conurbation, in areas of plentiful renewable energy, is a positive for both the local and wider economy. The local economy in terms of jobs, complementary services and innovation, and wider economy in terms of less dispatch down (power that is produced but cannot be used) of renewable energy production.

Furthermore, ABO Energy as a developer of renewable energy projects would put more focus on developing energy projects in an area such as North County Mayo, which is willing to attract data centre development.

Yours sincerely

Joseph Jellie

Dr. Joe Jellie CEng MIEI

Managing Director

ABO Energy Ireland Ltd.

Directors Dr. Karsten Schlageter, Mario Kellermann, Oliver Metten, Joe Jellie.
Incorporated in Ireland as a private company limited by shares under Certificate No. 437476 · **VAT reg. no.** IE 9663479 M · **Registered office** – as above
Bank account no. 66938675, Branch code 90-04-71 · IBAN IE78 BOFI 9004 7166 9386 75 · BIC BOFIIE2D · **Internet** www.aboenergy.ie

Mayo Data Hub Limited

Riverside One

Sir John Rogerson's Quay

Dublin 2

D02 X576

Date: 02nd April 2025

Reference: Mayo Data Hub Limited

To Whom It May Concern,

Mayo is a leader in renewable electricity development with the first commercial wind farm installed in Bellacorick in 1992 Currently, there is more than 500 MW of generation capacity in Mayo, enough to power 10% of the country's needs. However, this is triple the amount of electrical demand in the Mayo area, resulting in lost renewable energy as the grid cannot always export this electricity out of the region. Based on system data from the transmission system operator, County Mayo experienced lost renewable energy of approximately 28% in 2024. EirGrid note that in some scenarios, lost energy in the Mayo region could reach highs of 50% by 2030.

Strategically placed large energy users, such as Data Centres, enable local benefits through economic investment and capture of spilled green electricity. They also support Irelands renewable energy targets and economic strategy as well help to fund infrastructure. In addition to grid development, such as the North Connacht project, there is a need to increase the localised industrial demand in Mayo to further aid in the penetration of renewable energy by capturing energy that would otherwise be lost. This will be important in the context of a balanced regional economic development approach to infrastructure, and if done correctly can enable further growth in renewable energy in tandem with significant industrial development.

Yours sincerely,

Strategic Partnerships & Business Development Manager