

The Secretary,  
An Bord Pleanála,  
64 Marlborough Street,  
Dublin 1.

Date: 6<sup>th</sup> November 2023

Dear Sir/ Madam,

**RE: RESPONSE TO THIRD PARTY APPEALS OF THE NOTIFICATION OF DECISION OF FINGAL COUNTY COUNCIL TO GRANT PERMISSION FOR A DEVELOPMENT COMPRISING THE CONSTRUCTION OF THREE NEW DATA CENTRE BUILDINGS (BUILDINGS E, F, AND G) AND ASSOCIATED WORKS ON LANDS AT CRUISERATH ROAD, DUBLIN 15**

**FINGAL COUNTY COUNCIL REG. REF.: FW22A/0308**

**AN BORD PLEANÁLA REF.: PL06F.318180**

## **1.0 INTRODUCTION**

- 1.1 On behalf of the applicant, Universal Developers LLC, which has its registered office at 251 Little Falls Drive, Wilmington, New Castle County, Delaware, 19808, USA, we, John Spain Associates, 39 Fitzwilliam Place, Dublin 2, hereby submit a response to the third party appeals of the notification of decision of Fingal County Council dated the 18th of September 2023 under Reg. Ref.: FW22A/0308 to grant planning permission for development on a site at Cruiserath Road, Dublin 15.
- 1.2 The application site is located to the north of the data centre permitted / constructed under An Bord Pleanála Reg. Ref.: PL06F.248544 / Fingal County Council Reg. Ref.: FW17A/0025, to the west of the two data centres permitted under Fingal County Council Reg. Ref.: FW19A/0087, and to the north and west of the 220kV Gas Insulated Switchgear substation permitted under An Bord Pleanála Reg. Ref.: 306834-20. The site is within an overall landholding bound to the south by the R121 / Cruiserath Road, to the west by the R121 / Church Road and to the north by undeveloped land and Cruiserath Drive.
- 1.3 This appeal response is submitted in reply to correspondence received from An Bord Pleanála dated **9<sup>th</sup> of October 2023**, enclosing a copy of the third-party appeal submitted by the following third party:
  - BKC Solicitors on behalf of John Conway and Louth Environmental Group, 91 St. Nicholas Avenue, Dundalk, Co. Louth.

Managing Director: John P. Spain  
Executive Directors: Paul Turley | Rory Kunz | Stephen Blair | Blaine Cregan

Senior Associate Directors: Luke Wymer | Meadhbh Nolan | Kate Kerrigan  
Associate Directors: Ian Livingstone | Tiarna Devlin

John Spain Associates Ltd. trading as John Spain Associates.  
VAT No. IE 6416306U

- 1.4 Further correspondence was received from the Board dated the **17<sup>th</sup> of October 2023** enclosing copies of a further four appeals from the following bodies/individuals. These appeals are also responded to in full within this appeal response. The four further appeals were made by the following third parties:
- Mr Colin Doyle, 12 Cottage Gardens, Ennis, Co. Clare.
  - Jerry Mac Evilly on behalf of Friends of the Earth, 9 Mount Street, Dublin 2.
  - Sarah Zimmermann on behalf of Fingal One Future, C/O 28 Moylaragh Crescent, Balbriggan, Co. Dublin.
  - Mannix Coyne, Bracetown, Clonee, Co. Meath.
- 1.5 Copies of these letters from the Board are included as Appendix 1 to this response document.
- 1.6 This response includes the following appendices:
- 1) Copy of Correspondence from An Bord Pleanála Enclosing the Appeals
  - 2) Copy of the Decision of Fingal County Council to Grant Permission
  - 3) Response document on Climate and Air Quality Impact prepared by AWN Consulting
  - 4) Response on Construction Carbon Assessment prepared by Henry J Lyons Architects
  - 5) AWS In Ireland (Economics and Employment Report, 2023)
- 1.7 This document provides a coordinated response to all points raised within the third party appeals, which was submitted by the five named appellants listed above. This document includes direct input from AWN Consulting (AWN), Henry J Lyons Architects (HJL), and from the Applicant. The overall response has been co-authored and coordinated by John Spain Associates.
- 1.8 The Proposed Development was described as follows in the public notices submitted with the application:
- *“Construction of three data centre buildings (Data Centre E, Data Centre F, and Data Centre G), with a gross floor area (GFA) of c. 1,425 sq.m, c. 20,582 sq.m, and c. 20,582 sq.m respectively, each over two levels (with Data Centre F and G each including two mezzanine levels);*
  - *Data Centre F and G will be located in the north-western portion of the overall landholding, with a primary parapet height of c. 19.8 metres and each will accommodate data halls, associated electrical and mechanical plant rooms, a loading bay, maintenance and storage space, office administration areas, with plant and solar panels at roof level;*
  - *Data Centre E (which will be ancillary to Data Centre F and G) will be located within the south-western portion of the overall landholding, with a primary parapet height of c. 13.1 metres and will accommodate data halls, associated electrical and mechanical plant rooms, a loading bay, maintenance and storage space, office administration areas, with plant at roof level;*
  - *Emergency generators and associated flues will be provided within compounds adjoining each of the three data centre buildings (1 no. for Data Centre E, 19 no. for Data Centre F, and 19 no. for Data Centre G);*
  - *The development includes one diesel tank and two filling areas to serve the proposed emergency generators;*
  - *Provision of ancillary structures including two MV buildings, water storage tanks and three bin stores;*
  - *Construction of access arrangements and internal road network and circulation areas, footpaths, provision of car parking (105 no. spaces), motorcycle parking*

*(12 no. spaces) and bicycle parking (56 no. spaces), hard and soft landscaping and planting (including alteration to a landscaped berm to the north of proposed Data Centre E), lighting, boundary treatments, and all associated and ancillary works including underground foul and storm water drainage network, and utility cables.”*

- 1.9 The planning application was accompanied by an Environmental Impact Assessment Report (EIAR).
- 1.10 Based on the responses to the grounds set out in the third-party appeal submitted, it is respectfully requested that An Bord Pleanála issues an Order to grant planning permission for the Proposed Development.
- 1.11 The background to the Proposed Development and the Operator of the Proposed Development is briefly summarised in Section 2. Section 3 provides a summary of the Fingal County Council decision to grant permission, while Section 4 introduces the third-party appeals submitted on the current application and provides a robust and evidence-based response to the third party appeals on a thematic basis. The response seeks to break the appeals into their constituent parts and key points, with each being rebutted comprehensively under the relevant heading.
- 1.12 For a detailed justification of the Proposed Development in planning policy terms please refer to the documentation submitted with the planning application, notably Section 5.0, 6.0, and 7.0 of the Planning Report prepared by John Spain Associates and submitted with the application, and the Further Information Response cover letter prepared by John Spain Associates. This response document makes specific reference to the documentation submitted with the application (including the EIAR) and the documentation submitted as part of the Further Information response to Fingal County Council where relevant.

## **2.0 OPERATOR OF THE PROPOSED DEVELOPMENT**

- 2.1 The following section has been prepared by the applicant.
- 2.2 As set out in the Planning Report (Section 1.7-1.9) which accompanied the application to Fingal County Council, the existing campus is owned and operated by Amazon Data Services Ireland Limited (ADSIL), the Irish entity of Amazon Web Services (AWS) which is part of the Amazon.com, Inc group of companies. The Proposed Development is to support AWS's customers in Ireland.
- 2.3 AWS offers customers access to more than 200 fully featured services from its data centres. This means that organisations of all sizes and in all industries – from the fastest-growing startups to the largest enterprises, government bodies, educational institutions or healthcare providers – can use cloud computing to lower costs and innovate faster. This allows government bodies, large enterprises, start-ups, education institutions, healthcare providers and individuals to leverage the cloud to lower costs and innovate faster. AWS's Ireland Region was established in 2007, and since this time the company has invested significantly in the country. An Economic Impact Study of AWS's investments in Ireland, undertaken by Indecon International Economic Consultants, established that since 2012 AWS investment in Ireland has increased economic output by over €11.4 billion. This level of investment generated growth in economic output of €2.4 billion per year in 2022 alone. This study showed that AWS support more than 10,000 jobs, including over 4,200 direct AWS employees, 3000 people working for AWS suppliers and sub-contractors and 2,900 other roles elsewhere in the workforce attributable to AWS investment. AWS enables 500 Irish supplier and contractor companies, creating increased business and export opportunities. Irish contractors who work with AWS, now export services to 28

different countries across the globe. The newly opened 630,000 square foot fulfilment centre, in Dublin's Baldonnell Business Park, has created 500 new jobs and will help provide faster delivery for customers across the country seven days a week, including one-day delivery on hundreds of thousands of items.

- 2.4 AWS is resolutely committed to sustainability. In 2019, Amazon co-founded The Climate Pledge, a commitment to reach net-zero carbon emissions by 2040—10 years ahead of the Paris Agreement. As part of this, Amazon is on a path to powering its global operations with 100% renewable energy by 2025 – five years ahead of its original target of 2030, and before the proposed Data Centres F & G are due to come into operation. Amazon is the largest corporate purchaser of renewable energy in the world, and has announced over 400 renewable energy projects across 22 countries globally, representing more than 20 gigawatts (GW) of renewable energy capacity. Once fully operational, Amazon's global renewable energy portfolio will generate more than 56,000 gigawatt hours (GWh) of clean energy, which is the equivalent amount of electricity needed to power 13.4 million European homes each year. Amazon was the first company in Ireland to deliver unsubsidised Corporate Power Purchase Agreements (CPPAs). This means Amazon is helping to add renewable energy to the grid without direct government support, thus reducing subsidy costs on other local energy users. In Ireland alone, Amazon has committed to offtake 100% of the power from renewable wind projects in Cork, Donegal, and Galway. Amazon does not own these projects, but their commitment to purchasing the power and environmental attributes from these projects enable them to be built. In total, these three wind projects are projected to add 229 megawatts of renewable energy to the Irish grid, reducing carbon emissions by 366,000 tonnes of CO<sub>2</sub> each year, and producing enough renewable energy to power 185,000 Irish homes, per annum. These three wind projects will make Amazon the largest single corporate buyer of renewable energy in the country.
- 2.5 AWS's renewable strategy and climate focus – which is consistent with government's own climate goals of achieving 80% renewable energy usage by 2030 – is very much evident in its investment in Irish infrastructure. AWS has already announced three onshore wind projects here, one of which is now operational and is delivering clean energy to the country's electricity grid. It is also supporting the new district heating scheme in Tallaght, South Dublin, by providing heat from a nearby data centre. The system will initially heat 47,000 m<sup>2</sup> of public sector buildings – an area three times the size of the city's Croke Park stadium pitch – as well as 3,000m<sup>2</sup> of commercial space and 135 affordable rental apartments. This is projected to save 1,500 tonnes of carbon per annum during the first phase, the equivalent of a 60 per cent reduction in carbon emissions. These renewable wind and district heating projects have been achieved through collaboration and partnerships with government, renewable energy developers, and local utilities. They reflect the company's continued commitment to sustainability, both in Ireland and internationally.

### **3.0 NOTIFICATION OF FINGAL COUNTY COUNCIL TO GRANT PERMISSION**

- 3.1 On the 18<sup>th</sup> of September 2023, the Planning Authority, Fingal County Council, issued a decision to grant permission for the Proposed Development. The decision to grant permission was subject to 24 conditions in total.
- 3.2 Prior to the decision to grant permission, the Planning Authority had previously requested Further Information (the request for which was issued on the 17<sup>th</sup> of February 2023), which the applicant provided a response to on the 3<sup>rd</sup> of August 2023.
- 3.3 The applicant welcomes the decision of Fingal County Council to grant planning permission for the Proposed Development, which accords with the planning policy

context and which will deliver a data centre development representing significant investment and new employment creation for the area, on lands within their wider landholding which comprises an existing and permitted data centre campus, including a high voltage transmission substation developed to serve the campus.

#### **4.0 RESPONSE TO GROUNDS OF APPEAL**

4.1 The following sets out a response to the grounds of the third party appeals of the decision to grant permission issued by the Planning Authority. As noted previously, the response has been set out under a series of headings, corresponding with the main themes of the appeals submitted in order to avoid undue repetition.

4.2 The headings under which the response has been formulated are as follows:

- Request for Oral Hearing
- Alleged Deficiency in Fingal County Council Decision
- Corporate Power Purchase Agreement and Renewable Additionality
- Corporate Power Purchase Agreement as Mitigation
- Corporate Power Purchase Agreement and Assessment of Renewable Projects(s)
- Overconcentration of Data Centre Development
- Cumulative Assessment of other Data Centre Projects
- Accuracy of Climate Assessment, Conclusions on Climate Impact, and Consideration of Reasonable Worst Case
- The EU ETS and National Carbon Targets / Sectoral Emissions Ceilings
- Consistency with section 15 of the Climate Action and Low Carbon Development Act 2015, as amended.
- Consistency with the Climate Action Plan 2023 Statement on Large Energy Users and Just Transition
- Consistency with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022)
- Compliance with the Fingal County Development Plan
- Carbon Emissions During Construction
- Impact of Diesel Generators and Operating Hours of Generators
- Use of Renewable Diesel
- Other Miscellaneous Points

#### **Request for an Oral Hearing**

4.3 The appeal submitted by Jerry Mac Evilly on behalf of Friends of the Earth ('the Friends of the Earth appeal') includes a request that the Board convene an Oral Hearing in respect of the Proposed Development.

4.4 In this regard, while it is a matter for the Board to determine the need for an Oral Hearing at their discretion, it is considered that the documents submitted to the Planning Authority and the current response has provided the necessary information for the appeals to be determined by reference to this response and the information on the planning file. It is therefore submitted that an Oral Hearing is likely not required in this case.

4.5 Additionally, it is noted that the Board may request the submission of additional information and documentation at its discretion under section 132 of the Planning and Development Act 2000, as amended. In this regard, it is acknowledged that the application to Fingal County Council, the Further Information response to Fingal County Council, and the current appeal response contain a significant volume of

technical information. Additionally, there are significant quantities of information and detailed responses provided pertaining to specific points and grounds of appeal.

- 4.6 Therefore, should the Board require any additional information or clarification of the information already submitted, the Applicant would welcome a request to provide same under section 132 of the Act, in order to ensure that a robust and reasoned decision can be arrived at on the current application.

#### **Alleged Deficiency in Fingal County Council Decision**

- 4.7 The appeal submitted by Mr. Colin Doyle ('the Colin Doyle appeal') argues (at Page 1) that the decision of the Planning Authority to grant permission for the Proposed Development was flawed, because it represented an "*ad hoc allocation*" of a portion of the limited remaining national carbon budget, which Fingal County Council has neither the expertise nor legal authority to undertake.
- 4.8 The corollary of this particular argument put forward by the appellant is that no Planning Authority could grant permission for any development which might take up part of the national carbon budget. Such a suggestion does not reflect the reality of the planning system, and is clearly not correct.
- 4.9 The appeal further argues that Fingal County Council endorsed the AWN assessment of climate impact and Greenhouse Gas (GHG) mitigation by granting permission for the Proposed Development, without properly considering the submissions of the appellant on the planning file.
- 4.10 With regard to the first of the above points, it is noted that the Planning Authority, Fingal County Council, made its decision in accordance with the relevant planning policy and guidance, and was the appropriate authority with jurisdiction to make a decision to grant permission for the Proposed Development (with the Board now the appropriate authority to determine the appeals of the Planning Authority decision). The Planning Authority afforded the application detailed consideration prior to reaching their decision to grant permission.
- 4.11 The Chief Executive's Order / Planner's Report prepared by Fingal County Council, which informed the decision on the application, included an Environmental Impact Assessment (EIA) undertaken by the Planning Authority. It is noted that the Board will undertake their own EIA of the Proposed Development, taking account of the appeals submitted and this response to the third party appeals.
- 4.12 The Planning Authority requested Further Information from the applicant, including in relation to compliance with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) (the 'Government Statement'). A detailed Further Information response was submitted as mentioned in Section 3 above, and the Chief Executive's Order reflects the in depth analysis undertaken by the Planning Authority of the Further Information response. The following conclusion was recorded in the Chief Executive's Order:

*"It is considered that, subject to compliance with the conditions set out below, the Proposed Development of three data centres would be consistent with European and Government policy concerning the development of digital infrastructure and subject to compliance with conditions, would accord with the policies and objectives pertaining to such development (including Objectives DMSO92, DMSO5, CAP13, CSO14 and Objective EEO4); and to the High Technology zoning objective for the application site as set out in the Fingal Development Plan 2023-2029. The design and layout of the Proposed Development is considered acceptable and the materials*

*and finishes provide for a high architectural design and the proposal is acceptable within the wider context of the overall site layout.”*

- 4.13 The Chief Executive’s Order includes an updated EIA section following receipt of the Further Information response, and also reflects the adoption of the new Fingal Development Plan 2023-2029 in the intervening period between the Further Information request and the decision to grant permission. The conclusion in relation to the Environmental Impact Assessment undertaken by the Planning Authority:

*“The likely significant environmental effects arising as a consequence of the Proposed Development have therefore been satisfactorily identified, described and assessed. Subject to the implementation of the mitigation measures proposed as set out in the environmental impact assessment report, addendum to the environmental impact assessment report and conditions attached to any grant of permission, the effects on the environment of the Proposed Development by itself and in combination with other development in the vicinity would be acceptable. This conclusion is up to date at the time of writing.”*

- 4.14 The Planning Authority also issued their decision to grant permission on the basis of a seven year duration of permission, as requested by the applicant and justified within the Planning Report submitted with the application to the Planning Authority. The Planning Authority noted that this was based on a number of considerations, including *“based on a number of considerations - the scale and complexity of the proposed development; power availability to support the proposed development and to ensure that all works can be carried out within the lifetime of the permission. This is considered reasonable.”*

- 4.15 We refer the Board to the original Planning Report for further justification of the requested seven year permission duration.

- 4.16 With regard to the contention of the appellant that the Planning Authority did not give sufficient consideration to the appellant’s previous submissions, in fact the Planning Authority clearly indicated in their assessment that all submissions had been taken into account, including those made by Mr. Colin Doyle. In fact, the Planning Authority accepted and took into account submissions made by third parties (including the appellant) following receipt of the Further Information response, even though the response was not deemed significant and re-advertisement was not required.

- 4.17 In any event this is a moot point, as the appeal process will see the Board consider the entire development proposal *de novo*, including all of the grounds of submission previously raised by the Mr. Colin Doyle (and others) and the grounds of appeal now raised.

#### **Corporate Power Purchase Agreements and Renewable Additionality**

- 4.18 The appeals submitted by John Conway and Louth Environmental Group (appeal ground (b) of that appeal), Mr. Colin Doyle (pages 1-9 of the appeal), and Friends of the Earth (pages 2-3 of the appeal) argue that imposing a condition of the nature of Condition 13 applied by Fingal County Council would not in fact deliver ‘additionality’ of renewable capacity.

- 4.19 The wording of Condition 13 applied by the Planning Authority 13 is as follows:

*“Prior to the commencement of development, the applicant shall submit for the written agreement of the Planning Authority details of a Corporate Purchase Power Agreement that the developer has entered into which demonstrates that the energy consumed by the development on site is matched by new renewable energy*

*generation in line with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy. The Agreement shall comply with the following:*

- a) The new renewable energy projects shall not be supported by government, consumer or other public subsidies;*
- b) The new renewable energy projects shall be located in Ireland and full details of these including consent details shall be provided;*
- c) The new renewable energy projects shall be provided by the applicant's group, that is Amazon.com, Inc.*
- d) The new renewable energy generation shall relate to energy that is not being generated at the date of grant of this permission.*
- e) The amount of electricity generated by the new renewable energy projects shall be equal to or greater than the electricity requirements of the data centres in operation at any given time.*
- f) The new renewable energy projects shall be fully operational prior to the commencement of operation of the data centres having regard to the phased nature of the proposed development.*

*REASON: In the interests of sustainable development.”*

4.20 This condition wording reflected the condition suggested by the applicant in the Further Information response to Fingal County Council, with several additions (shown in green above).

4.21 An Taisce, the National Trust for Ireland have taken a keen interest in Data Centre development over the past several years, appealing several developments to the Board. An Taisce previously appealed the decision to grant permission for a separate application relating to the Huntstown Power Company Limited data centre development which was subject to a decision to grant permission under Fingal County Council Reg. Ref.: FW21A/0151 (the appeal is under ABP Reg. Ref: PL06F.313583). In their appeal grounds, An Taisce request the following items are added to Condition 3 which had been applied by Fingal County Council:

*“That the amount of electricity generated by the new renewable energy projects is equal to or greater than the electricity requirements of the data centre; and*

*That the new renewable energy projects are fully operational prior to the commencement of operation of the data centre.”*

4.22 The additional items suggested by An Taisce closely reflect the additional wording adopted by Fingal County Council in their condition on the current application. Thus, the condition applied by Fingal County Council closely reflects the suggestions of An Taisce on a separate planning process.

4.23 The applicant welcomes inclusion of Condition 13 as applied by Fingal County Council in their notification of decision to grant permission.

4.24 The appeals argue that, rather than ensuring “additionality” and offsetting the energy used by the development, a CPPA as described in the Fingal County Council condition would merely result in the purchase of a renewable project which is already in the planning process, thereby the CPPA is not going to add renewables.

4.25 These arguments are reflected and expanded on in the Mr. Colin Doyle appeal, which in summary, argues the following:

- I. The appellant claims that in the absence of renewable energy keeping pace with new data centre demand, or realistically reaching 80% by 2030, the

contention that CPPAs will offset demand growth from data centres is incorrect. They argue that, were data centres to require the quantities of energy predicted in EirGrid analysis, they may require an additional 891MW of power in the median forecast scenario or 1,395MW in the high forecast scenario. It is argued that this level of growth could effectively nullify most if not all of Ireland's planned new onshore wind energy over the same period. The appellant claims that due to the timelines involved in offshore wind delivery, it cannot be relied on to be achieved by 2030, and in any event has been factored in to meet the CAP 2023 targets.

- II. The appellant claims that while CPPAs may speed up the delivery of certain renewable projects, they do not automatically result in "additionality". The appellant claims that "additionality" only occurs where a renewables project would not have happened in the absence of the CPPA.
- III. The appellant claims that the Renewable Electricity Corporate Power Purchase Agreements Roadmap (2022) (the 'CPPA Roadmap') and the Government Statement outline the need for CPPAs to deliver "additionality" of renewables, however no evidence has been provided to prove that the applicant would engage in a CPPA which would deliver "additionality".
- IV. The appellant claims that there is 1,800MW of wind generating capacity in the development pipeline at present, that there is 4,400MW currently operating, and a goal of 6,000MW for 2025 (per the 2023 CAP). They argue that therefore, all projects currently in the pipeline are required to be operational by then. They argue that a further 2,800MW is needed to enter the pipeline in the short term to meet the 2030 target of 9,000MW. The appellant claims that on this basis, all projects currently in the pipeline will come forward at some point, even in the absence of CPPAs, and therefore the agreement of a CPPA in respect of any of them would not represent "additionality". The appeal sets out that each of the requirements of the condition on CPPAs (Condition 13) applied by Fingal County Council could be achieved, without achieving "additionality" (on the basis that a project within the existing development pipeline would be targeted for a CPPA). The appellant claims that if the Board accept that a CPPA can offset the energy use of the Proposed Development, it could result in a 'planning free-for-all', with all new renewables projects claimed to offset the energy requirements of large industrial users.

4.26 Each of the above are dealt with in turn below. The following sections have been prepared with direct input from the applicant.

- I. **The appellant claims that in the absence of renewable energy keeping pace with new data centre demand, or realistically reaching 80% by 2030, the contention that CPPAs will offset demand growth from data centres is incorrect. They argue were data centres to require the quantities of energy predicted in EirGrid analysis, they may require an additional 891MW of power in the median forecast scenario or 1,395MW in the high forecast scenario. It is argued that this level of growth could effectively nullify most if not all of Ireland's planned new onshore wind energy over the same period. The appellant claims that due to the timelines involved in offshore wind delivery, it cannot be relied on to be achieved by 2030, and in any event has been factored in to meet the CAP 2023 targets.**

4.27 Condition 13 of the Fingal County Council decision to grant permission requires that the applicant's group enter into a CPPA for the energy use of the Proposed Development, thereby ensuring that the development's energy use will be met with new renewable generation, ensuring that the new load added to the system is supported by new renewable energy so that achieving the goal of the Climate Action

Plan requirement for 80% renewable electricity by 2030 is not made more challenging by this new demand. As further detailed below, the Proposed Development's delivery of CPPA(s) will ensure that the new load added to the system is supported by new renewable energy so that achieving the goal of the Climate Action Plan requirement for 80% renewable electricity by 2030 is not made more challenging by this proposed development along with the objectives of any relevant update in the annual CAP review in CAP24.

- 4.28 The Government's 'Summary of Analysis to Support Preparation of the Sectoral Emissions Ceilings'<sup>1</sup> (2022) provides details of the "*analysis and research that informed the preparation of the Sectoral Emissions Ceilings.*" With respect to the Electricity Sector, demand growth was assumed in line with the median growth scenario projected by the EirGrid Generation Capacity Statement 2020-2029 – the median scenario was used as the "proposed scenario" to establish the Electricity Sectoral Emissions Ceiling. That demand growth forecasted in the 'Summary of Analysis to Support Preparation of the Sectoral Emissions Ceilings' (2022) is influenced by several factors including contracted data centre capacity (i.e. the Proposed Development), the electrification of the transport sector and home heating.
- 4.29 The EirGrid Generation Capacity Statement for 2020-2029 set out a median overall demand in 2029 of 1,250MVA for Data Centre and Large Industrial User Demand by 2029 (Table 5<sup>2</sup>). The current version of the EirGrid Generation Capacity Statement 2022-2032 shows an increase of 241MVA for Data Centre and Large Industrial User Demand by 2032 (Table 2.2<sup>3</sup>) – giving a median overall demand in 2031 of 1,491MVA.
- 4.30 While marginally lower demand (241MVA) than current EirGrid projections, the "proposed scenario" taken into account in developing the Sectoral Emissions Ceilings includes the growth of data centres with contracted demand such as the Proposed Development.
- 4.31 The Climate Action Plan 2023 (CAP23) "*sets out the roadmap to deliver on Ireland's climate ambition. **It aligns with the legally binding economy-wide carbon budgets and sectoral ceilings** that were agreed by Government in July 2022. **This will enable Ireland to meet 2030 targets** and be well placed to meet mid-century decarbonisation objectives which will also help deliver cleaner air, warmer homes and a better quality of life for Irish citizens.*" [Emphasis added]
- 4.32 Specific to the Electricity Sector, CAP23 sets out that "*[a]mong the most important measures in **the plan is to increase the proportion of renewable electricity to up to 80% by 2030** and a target of 9 GW from onshore wind, 8 GW from solar, and at least 5 GW of offshore wind energy by 2030.*" The 80% renewable electricity share of demand is worked back from the Carbon Budget, the associated Sectoral Emissions Ceilings and ultimately the demand projections that have been established for all Sectors. As set out above, those demand projections include the Proposed Development. [Emphasis added]
- 4.33 As the Proposed Development will be bringing forward renewables for contracted data centre demand which is already accounted for within CAP23, it is clear that the commitment to deliver a CPPA in line with Condition 13 will adhere to and enhance the same efforts established under CAP23. The applicant shares the Government

<sup>1</sup> <https://assets.gov.ie/236057/3ddf7b83-8ee8-4d62-b35e-d3dea38fa433.pdf>

<sup>2</sup> <https://www.eirgridgroup.com/site-files/library/EirGrid/All-Island-Generation-Capacity-Statement-2020-2029.pdf>

<sup>3</sup> [https://www.soni.ltd.uk/media/documents/EirGrid\\_SONI\\_2022\\_Generation\\_Capacity\\_Statement\\_2022-2031.pdf](https://www.soni.ltd.uk/media/documents/EirGrid_SONI_2022_Generation_Capacity_Statement_2022-2031.pdf)

vision and has a strong record in delivering on its climate and sustainability commitments. The applicant's commitment is detailed in the submitted Planning Report, Further Information Response & this appeal response, and demonstrates that the Proposed Development complies with National, Regional and Local planning policy and is aligned with the Government Statement.

- 4.34 The judgment of the High Court in *Coyne v An Bord Pleanála*<sup>4</sup> (at Paragraph 210 (i)(iv)) states the following:

*“On the other hand, it is impossible in development consent after EIA of a Data Centre or other large electricity consumer from the National Grid, to condition its operation on a particular National Fuel Mix or like criterion as to the proportion of renewable generation supply to the National Grid. So, in this respect and in appreciable degree, an EIA represents a prediction at a fixed point in time which may prove, with time, to have been more or less accurate in hindsight.”*

- 4.35 The judgment of the High Court in *Coyne v An Bord Pleanála*<sup>5</sup> (at Paragraph 125-127) goes on to state the following:

*“125 As to “Assessing Significant Effects” the 2013 Guidance [2013 Guidance on Climate Change] states that many assessment approaches used in EIA have the capacity to address climate change. “There are, however, three fundamental issues that you should consider when addressing climate change and biodiversity: the long-term and cumulative nature of effects, complexity of the issues and cause-effect relationships and uncertainty of projections.” There follows a consideration of all three issues, the premise of which is that EIA should address them. I would add that this premise must itself be premised on climate change having been scoped into the EIA as a likely significant effect.*

*126 The 2013 Guidance states that EIA, to properly address climate change, should take into account its complexity (including of causal relationships) and long-term direct and indirect impacts and consequences. EIA should describe the sources of, and characterise the nature of, uncertainty. Judging an impact's magnitude and significance must be context-specific. The contribution of an individual project to GHGs may be insignificant on the global scale but may be significant on the local/regional scale, in terms of its contribution to set GHG-reduction targets.*

*127 Finally, it is worth noting some of the “bullet points” tabulated in 2013 Guidance as “Critical challenges for addressing climate change ... in EIA”:*

- Manage complexity. Consider the complex nature of climate change and biodiversity and the potential of projects to cause cumulative effects.*
- Be comfortable with uncertainty, because you can never be sure of the future. Use tools such as scenarios (for example, worst-case and best-case scenarios) to help handle the uncertainty inherent in complex systems and imperfect data. Think about risks when it is too difficult to predict impact.*

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<sup>4</sup> [2023] IEHC 412

<sup>5</sup> [2023] IEHC 412

- *Base your recommendations on the precautionary principle and acknowledge assumptions and the limitations of current knowledge.*
- *Be practical and use your common sense!*

*The guidance also states that “considering a range of possible uncertain futures and understanding the uncertainties is part of good EIA practice and permits better and more flexible decisions.*

*In other words, it is no error to acknowledge and assess uncertainty and risk as best you reasonably can. Error may well lie in ignoring them.”*

4.36 As set out above, the CPPA will ensure that the new load added to the system is supported by new renewable energy so that achieving the goal of the Climate Action Plan requirement for 80% renewable electricity by 2030 is not made more challenging by this new demand, and the predictions contained within the EIAR and the accompanying AWN response document in relation to the proportion of renewable generation supply are robust, albeit representing ‘a prediction at a fixed point in time’.

**II. The appellant claims that while CPPAs may speed up the delivery of certain renewable projects, they do not automatically result in “additionality”. The appellant claims that “additionality” only occurs where a renewables project would not have happened in the absence of the CPPA.**

4.37 Under Amazon's publicly available Renewable Energy Methodology<sup>6</sup>, Amazon works with energy companies around the globe to develop **new** renewable projects dedicated to serving their load, which is aligned with the CPPA Roadmap which 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]

4.38 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 will not benefit from receipt of subsidy under the Renewable Electricity Support Scheme (RESS), in line with the CPPA Roadmap. Condition 13(a) of the Fingal County Council decision captures the requirements set out in the CPPA Roadmap, requiring that:

*“The new renewable energy projects shall not be supported by government, consumer or other public subsidies”*

4.39 See further submissions in relation to the above in the response to Part IV below.

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<sup>6</sup> <https://sustainability.aboutamazon.com/renewable-energy-methodology.pdf>

**III. The appellant claims that the Renewable Electricity Corporate Power Purchase Agreements Roadmap (2022) (the ‘CPPA Roadmap’) and the Government Statement outline the need for CPPAs to deliver “additionality” of renewables, however no evidence has been provided to prove that the applicant would engage in a CPPA which would deliver “additionality”.**

4.40 Respectfully, the appellant appears to have disregarded large swathes of the original Planning Report and Further Information Response when making these claims. The following sections prepared by AWS are taken from Further Information Response 3(B):

*“Amazon has a strong record of enabling new renewable energy projects through investments, otherwise called additionality. We have ambitious global targets and commitments. We are the largest purchaser of renewable energy in Europe, and in the world, for the third year running. We were the first company to enter into unsubsidised Corporate Power Purchase Agreements (CPPAs) in Ireland; and we consistently advocate for conditions that enable development of large-scale renewable projects. [...]*

*As set out in the submitted Planning Report, Amazon entered into the first unsubsidised CPPA in Ireland. Our first CPPA in Cork is now operational and forms part of the cohort of operational renewable projects which are reported against our global Climate Pledge goal. Meanwhile our project in Galway is due to come into operation later this year with our project in Donegal to come into operation in early 2024, once those projects become operational they will form part of the cohort of operational renewable projects reported against our global Climate Pledge goal. [...]*

*With respect to the Proposed Development, the Government Statement requires Applicants to demonstrate “renewable energy delivery in Ireland”. Amazon is committed to meeting this new requirement. In Q1 2023, AWS issued a Request for Proposal to the market, requesting renewable energy developers to present their Proposed Development pipeline and terms to align with AWS’s future requirements – this process saw submissions from several projects, totalling approximately 1GW of power. AWS is currently progressing opportunities with the details commercially confidential at this time. [...]*

4.41 The applicant has already delivered<sup>7</sup> new CPPA’s in Ireland which have not been directly subsidised by the Government. In the Further Information Response, they set out that they are actively searching for suitable renewable projects and welcomed a pre-commencement planning condition requiring a CPPA to be provisioned for the Proposed Development (taking into account it’s phased nature). Such a planning condition has been applied to the Proposed Development in the Fingal County Council decision to grant permission. Respectfully there is ample evidence the applicant will deliver on their commitment and meet the requirements of this condition once projects have been identified and secured.

**IV. The appellant claims that there is 1,800MW of wind generating capacity in the development pipeline at present, that there is 4,400MW currently operating, and a goal of 6,000MW for 2025 (per the 2023 CAP). They argue that therefore, all projects currently in the pipeline are required to be operational by then. They argue that a further 2,800MW is needed to enter the pipeline in the short term to meet the 2030 target of 9,000MW. The appellant claims that on this basis, all projects currently**

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<sup>7</sup> <https://www.aboutamazon.com/news/sustainability/amazon-wind-farm-renewable-energy-project-connemara-ireland>

**in the pipeline will come forward at some point, even in the absence of CPPAs, and therefore the agreement of a CPPA in respect of any of them would not represent “additionality”. The appeal sets out that each of the requirements of the condition on CPPAs (Condition 13) applied by Fingal County Council could be achieved, without achieving “additionality” (on the basis that a project within the existing development pipeline would be targeted for a CPPA). The appellant claims that if the Board accept that a CPPA can offset the energy use of the Proposed Development, it could result in a ‘planning free-for-all’, with all new renewables projects claimed to offset the energy requirements of large industrial users.**

- 4.42 Firstly, the ‘existing development pipeline’ referred to by Mr Colin Doyle is not a static category. As written, the appellant fails to consider early stage projects not yet in the planning process, and in addition fails to take account of those projects with consent but unable to proceed due to lack of grid connection or available route to market at this time. The number of renewable energy projects in the “pipeline” (which is a category put forward by the appellant, which is not referred to in either the CPPA Roadmap or the Government Statement on Data Centres) is clearly subject to change, and there is nothing in either policy document that suggests that projects in the pipeline are guaranteed to become operational. The applicant works with energy companies to develop new renewable projects dedicated to serving its load. Due to the upfront capital intensive nature of renewable energy projects, energy companies require a financial commitment to secure financing to build a project. RESS and CPPAs provide a mechanism to de-risk investing in such projects by providing certainty of revenues for a defined period thereby enabling the project to achieve financial close and progress to construction. The applicant’s procurement of renewable energy, via a CPPA, provides the energy company with such a financial commitment.
- 4.43 Further, the appellant's argument is in conflict with the government’s policies. The appellant argues that any project within the ‘development pipeline’, or even that which is already being considered in any capacity must be discounted from the potential range of projects for a CPPA, based on this argument the provisions and policy intent of the CPPA Roadmap and the Government Statement would be negated. It is submitted that the interpretation of “additionality” put forward by the appellant is inconsistent with Government policy (See also Section Part I above).
- 4.44 It is patently incorrect to say that *“all projects currently in the pipeline will come forward at some point, even in the absence of CPPAs”*. As noted above, renewable energy projects require a confirmed route to market in order to be developed and the reality is that not all renewable projects can (or will) be successful in RESS – which is a competitive auction by design (i.e. with winners and losers). CPPAs play an important role in this context by offering a complementary alternative to RESS, for developers that wish to diversify the route to market strategy for their renewable energy portfolio.
- 4.45 With regard to the argument that if the Board accept that a CPPA can offset the energy use of the Proposed Development, it could result in a ‘planning free-for-all’, with all new renewable projects claimed for the energy requirements of large industrial users, there is no basis for this statement. The engagement of the applicant’s group in a CPPA for the development’s energy use would, in fact, be entirely in accordance with the terms of the Government Statement, which specifically promotes engagement in CPPAs of this nature. Thus, inclusion of a condition for engagement in a CPPA by the Board as part of any Order to grant permission would in fact represent an approach which is fully aligned with Government policy for this particular type of development.

- 4.46 In addition points I-IV above, the Colin Doyle appeal also argues that the Further Information Response to Fingal County Council was not adequately fulsome with regard to details of renewables projects that Amazon has engaged in CPPAs on. The appeal lists three projects which were concluded to be the projects referred to. The appellant states that *“To claim that these wind farms offset emissions from the Proposed Development it would need to be demonstrated that these wind farms would not operate without the CPPAs negotiated with the applicant. The planning history for these wind farms indicates that they had all progressed through the planning system prior to any CPPA”*. For the avoidance of doubt, the Applicant has not made the *“claim that these wind farms offset emissions from the Proposed Development”* and in any case as set out above, “additionality” is not predicated on the receipt of consent.
- 4.47 In addition, Friends of the Earth appeal also argues that the provision of a CPPA for the Proposed Development as a method of mitigation would be of concern, as such CPPAs could ‘crowd out’ renewables which *“would otherwise be used to decarbonise the Irish electricity system”*. The appeal also quotes research emanating from UCC (funded by Friends of the Irish Environment) which states that *“If significant growth in future renewable electricity generation is ultimately required mainly to serve strong data centre demand growth, this will further limit the potential for transport, buildings and industry sectors to meet their decarbonisation commitments.”* Our view is that the research does not specifically relate to CPPAs, and nor does it actually take account of their role in the roll out of renewables, by raising the rate of renewable capacity being delivered and effectively balancing out the additional electricity demand of large energy users via additional renewables.
- 4.48 CPPAs provide a long-term commitment from a project buyer which enables the project developer to secure financing. For the project to be bankable, these purchase contracts need to be with a credit-worthy buyer and long-term (10-20 years). Few renewable energy projects are able to reach commercial operation without long-term purchase commitments. Therefore, CPPAs enable new renewable projects to be built. Condition 13 is aligned to the CPPA roadmap published by the Government in that it provides for new renewable capacity which is not in receipt of a direct Government subsidy and clearly reduces Ireland's GHG emissions and contributes to Ireland's 2030 climate and renewable energy targets. Under Amazon's publicly available Renewable Energy Methodology<sup>8</sup>, Amazon works with energy companies around the globe to develop new renewable projects dedicated to serving our load.
- 4.49 In conclusion the nature of CPPA envisaged by the applicant and stipulated by Condition 13 represent exactly the form of CPPA encouraged and required by the Government Statement and the adoption by the Board of a condition requiring a CPPA would not result in a ‘planning free for all’ as claimed by the appellant.

### **Corporate Power Purchase Agreement as Mitigation**

- 4.50 The John Conway and Louth Environmental Group (ground (b) of the appeal), Colin Doyle (pages 2 and 13 of the appeal), and Friends of the Earth (pages 2-3 of the appeal) appeals argue that, in circumstances where any CPPA in respect of the Proposed Development is not proven to deliver renewable additionality, such a CPPA cannot be appropriately considered as mitigation for the purposes of Environmental Impact Assessment.

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<sup>8</sup> <https://sustainability.aboutamazon.com/renewable-energy-methodology.pdf>

- 4.51 The Colin Doyle appeal states that “*as there is no proven additionality of the proposed CPPAs, there is no further mitigation possible to change the assessed impact to “Minor Adverse”*”, in the context of the climate assessment within the EIAR.
- 4.52 The John Conway and Louth Environmental Group appeal concurs with the contents of a previous submission on the application by Colin Doyle (Doyle’s second submission following the FI response, dated the 23<sup>rd</sup> of August 2023), and states that the applicant has failed to demonstrate that the CPPA envisaged in respect of the project would represent mitigation in terms of the development’s energy requirements and carbon emissions. It is argued that, in order to represent mitigation, it would be required to prove that “*the renewables project would not have happened without the CPPA*”.
- 4.53 However, contrary to the arguments put forward by the appellants, it has been set out in detail above that the form of CPPA committed to by the applicant would in fact provide for renewable additionality.
- 4.54 The accompanying response document on environmental matters prepared by AWN Consulting (Appendix 3 to this appeal response) sets out in detail that the consideration of a CPPA as mitigation in relation to the Proposed Development is entirely appropriate and is supported by the IEMA Guidance document *Pathways to Net Zero - Using the IEMA GHG Management Hierarchy* (Nov 2020), which in turn is referenced in *IEMA Assessing Greenhouse Gas Emissions and Evaluating their Significance 2<sup>nd</sup> Edition* (IEMA, Feb 2022).

We refer to the AWN document (Response Item A1) for further details and for a more detailed analysis of the relevant guidance.

### **Corporate Power Purchase Agreement and Assessment of Renewable Projects(s)**

- 4.55 The Mannix Coyne appeal argues (at pages 3-4 of the appeal) that Condition 13 applied by Fingal County Council in their decision to grant permission (which requires the applicant’s group to enter into a CPPA in respect of the Proposed Development) represents a “*significant secondary project that would likely not arise but for the principal project and could be described as integral to the project in how the condition is to be discharged*”. The appeal argues that the EIAR has not adequately assessed this ‘integral’ project. A similar argument is put forward by the John Conway and Louth Environmental Group appeal.
- 4.56 As detailed within the Further Information Response and the submitted Planning Report:

*“In 2019, Amazon co-founded The Climate Pledge, a commitment to reach net zero carbon emissions by 2040, 10 years ahead of the Paris Agreement. As part of that commitment, the company is on a path to powering its operations by 100% renewable energy by 2025, five years ahead of its original 2030 target. Sustainability and environmental commitments, made as part of the Climate Pledge are made by the whole Amazon business, of which AWS is a part.”*

It should be noted that the commitment (The Climate Pledge<sup>9</sup>) from the applicant’s group does not generally involve the linking of renewable projects to individual sites / developments, however Condition 13 applied by Fingal County Council would require the linking of a renewables project (or projects) to the Proposed Development.

<sup>9</sup> <https://www.theclimatepledge.com/us/en>

- 4.57 The applicant has not currently identified the project(s) which will be ultimately identified in a CPPA relating to the Proposed Development, which would entail a separate commercial agreement to be undertaken separately to the planning process and subsequent to any grant of permission for the Proposed Development.
- 4.58 Therefore, while the renewable energy (RE) project (or projects) have not been identified by the applicant at time of writing, in the event that the Board do wish to consider the likely impact of any such renewable energy project, the accompanying AWN response document includes an appraisal, in as far as practically possible, of the likely effects of any RE project that would likely be the subject of any future CPPA related to the Proposed Development. We refer to the AWN response document (Response Item A2) for further details. The AWN response document provides the following conclusion in this regard:

*“All new and future RE project(s) to be enabled by the applicant via CPPAs will be subject to planning conditions and obliged to comply with environmental and planning legislation. All new and future RE project(s) will almost certainly be located a significant distance away from the site of the Proposed Development and thus there is no likely significant cumulative impacts between the Proposed Development and the future RE project(s). In relation to climate impact, where geographical location is not relevant in terms of GHG emissions, the impact of the proposed RE project(s) is likely to be beneficial and contribute to the cumulative impact in a beneficial manner.”*

#### **Alleged Overconcentration of Data Centre Development**

- 4.59 The John Conway and Louth Environmental Group appeal (within ground (a) of the appeal document) argues that additional energy intensive data centre development should not be enabled due to a disproportionate number of data centres permitted or operational in the state. The Mannix Coyne appeal also argues (at page 5) that Ireland’s energy system was not designed to meet global demands for data centres, and that this should form a basis for refusing permission for the Proposed Development.
- 4.60 It is submitted that these grounds of appeal fail to recognise that the Proposed Development represents the logical next phase of an established data centre campus on the wider landholding, which has been subject to a consistent phasing approach since the first application on the lands in 2017, and which is provided for under an existing connection agreement with the transmission system operator. The development is in keeping with national and regional planning policies pertaining to data centre development (as set out in further detail below) and the Government Statement, which recognises the challenges posed by the growth of the data centre sector, whilst ensuring policy support for data centre developments which align with the principles of the Government Statement (which the Proposed Development does).
- 4.61 The Government Statement on the Role of Data Centres in Ireland’s Enterprise Strategy (2022) sets out the strategic importance of data centres to Ireland’s overarching enterprise policy and their role in attracting employment and investment to Ireland within the technology sector. It notes that: *“This Statement signals the Government’s clear preference for data centre developments that are associated with strong economic activity and employment; make efficient use of our electricity grid, deliver renewable energy in Ireland.”*
- 4.62 The introduction to the IDA Ireland’s 2021 – 2024 strategy ‘Driving Recovery and Sustainable Growth’ notes particular areas identified for growth including cloud

computing and big data (which are enabled by data centres such as the Proposed Development). The strategy states that “*Specific areas of opportunity include cloud computing, artificial intelligence (AI), 5G, big data, disruptive service platforms, advanced manufacturing, cell and gene therapy, connected health, industrial automation and renewable energy.*”

4.63 It is submitted that in planning terms, it is not a question of a 'disproportionate' number of data centres in Ireland relative to other places, as planning policy at national, regional, and local level supports the delivery of data centre developments in Ireland (subject to certain criteria), and at locations such as the Proposed Development site.

4.64 Furthermore, it is noted that the National Planning Framework (the NPF) under National Strategic Outcome 6, has identified Ireland as “*a sustainable international destination for ICT infrastructures such as data centres and associated economic activities*”. This objective recognises the fact that Ireland is a sustainable destination for development of this nature, which is not an optional form of development having regard to the important role which data centres and ICT play in the global economy.

4.65 The NPF at ‘National Strategic Outcome 6’ goes on to state that:

*“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. This sector underpins Ireland’s international position as a location for ICT and creates added benefits in relation to establishing a threshold of demand for sustained development of renewable energy sources.”*

4.66 Similarly, the regional planning policy context (as set out in section 6 of the Planning Report submitted with the current application) provides unequivocal support for the delivery of ICT infrastructure and data centres in Ireland.

4.67 The Regional Spatial and Economic Strategy for the Eastern and Midlands Regional Assembly (RSES for the EMRA) set out several objectives which are directly relevant to and supportive of the Proposed Development. The consistency of the Proposed Development with these policy documents is set out within Section 5 of the Planning Report submitted with the application to the Planning Authority.

4.68 Regional Policy Objective (RPO) of the RSES for the EMRA states the following:

*“Local Authorities shall:*

- *Support and facilitate delivery of the National Broadband Plan.*
- *Facilitate enhanced international fibre communications links, including full interconnection between the fibre networks in Northern Ireland and the Republic of Ireland.*
- *Promote and facilitate the sustainable development of a high-quality ICT network throughout the Region in order to achieve balanced social and economic development, whilst protecting the amenities of urban and rural areas.*
- *Support the national objective to promote Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities at appropriate locations.*
- *Promote Dublin as a demonstrator of 5G information and communication technology.”*

- 4.69 The argument that Ireland accommodates too many data centres is one which has been previously put forward in several previous appeals to the Board.
- 4.70 The Board have previously recognised the fact that data centres are not an optional form of development, for example in the consideration of the Apple data centre development at Athenry, Co. Galway (ABP Reg. Ref.: PL07.245518). In that case, the Board’s Inspector stated at paragraph 12.6.3 that *“it is clear to me that the facility proposed by Apple is not an optional form of development in the modern world, at least in an international context.”* The Inspector went on, in the same paragraph, to state the following:
- “In short, it is my opinion that data centres are a form of development [which] has to locate somewhere and, at an international level there is a strong case that locations such as Ireland and Denmark where Apple are proposing to develop their European facilities are the most appropriate given the temperate climate will reduce the overall energy requirement to run them.”*
- 4.71 The various data centre development proposals which have been subject to planning applications to date in Ireland, have been considered under statutory development plans that, while specific to each planning authority area, contain similar mixes and profiles of planning policies and objectives as frameworks against which each proposed data centre development (including the current Proposed Development) is assessed.
- 4.72 The Regional Spatial Strategy for the EMRA and the National Planning Framework have been the subject of prior environmental assessment at a strategic level (SEA). The relevant planning policy context supports the delivery of development of the nature proposed at appropriate locations such as the subject site (as outlined within the Planning Report submitted with the application to the Planning Authority).
- 4.73 In addition, various data centre development proposals have been authorised by An Bord Pleanála on appeal. To date the Board, across a range of specific proposals that have differed in terms of site, scale and design, has brought to its assessment of each, its understanding of the role and operation of data centres in Ireland, as set out in planning policy at a national, regional, and local level as outlined above, including the strong policy support provided in the National Planning Framework.
- 4.74 While the appellants may disagree with the policy context as it currently stands, an appeal or challenge to a particular development proposal is not an appropriate avenue to instigate a collateral attack on policies (which strongly support the delivery of the Proposed Development at national, regional, and local levels as set out previously in this Appeal Response, the Further Information Response and the submitted Planning Report).
- 4.75 The original High Court judgment in the Kilkenny Cheese case<sup>10</sup> held that attacking policy through attacking a development is not *“legally appropriate”*. Paragraph 44 of the original judgment states that:

*“Confronted with unchallenged policy documents and the highly regulated procedure for an individual planning consent, the applicant is trying to use the latter process to indirectly challenge the former. While that is forensically understandable as a tactic for “pushing the boat out”, the reason that it isn’t legally appropriate is that general, programmatic policies are not capable of being subjected to the same sort of site-specific regulation as planning applications.”*

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<sup>10</sup> [2021] IEHC 254

- 4.76 Paragraph 47 of the original judgment also states that *“many of the obligations of planning law relate only to individual projects. The high standards of scrutiny of particular development consents don’t apply to more general issues arising from overall programmes that are not site-specific in the same way.”*
- 4.77 In the judgment for leave to appeal, the High Court (Humphreys J) noted that *“because the legal grounds for challenging any government policy document are relatively scanty compared to those available to challenge an individual planning decision, the applicant is taking advantage of the latter grounds in order to make a point that in effect amounts to contesting the outcomes envisaged by the underlying policy... Worth trying once from an applicant’s point of view, but ultimately not a legally valid approach”*.<sup>11</sup> The judgment clearly states that it is not a *“legally valid”* approach to take advantage of the grounds for challenging an individual planning decision *“in order to make a point that in effect amounts to contesting the outcomes envisaged by the underlying policy”*.<sup>12</sup>
- 4.78 The policy issues raised in the *Kilkenny Cheese* case and the grounds raised within the appellants appeals against the subject application are directly analogous. In *Kilkenny Cheese*, the Court considered that An Taisce was really concerned with challenging the Government’s policy to increase the national dairy herd, noting that *“the applicant’s focus is on the increase in the dairy herd, which is specifically envisaged as a matter of government policy”*<sup>13</sup>, rather than raising a specific issue with the development of the cheese factory the subject of the permission. Thus, the decision in *Kilkenny Cheese* confirms that an objection / challenge to a Proposed Development is not an appropriate vehicle to target planning policy and accordingly the Board should not have regard to those arguments.
- 4.79 In conclusion it is submitted that the appellant’s contention that Ireland accommodates an overconcentration of data centre development (which is not accepted) is not based in evidence, is incorrect, and has no bearing on the decision to grant permission for the Proposed Development. As set out above, in the submitted Planning Report and Further Information response, the Proposed Development is strongly supported by the existing planning policy to which the Board must have regard.

### **Cumulative Assessment of other Data Centre Projects**

- 4.80 The Colin Doyle (pages 14 and 15 of the appeal), Friends of the Earth (page 6 of the appeal), and Mannix Coyne (page 5 of the appeal) appeals each raise grounds of appeal relating to the assessment of cumulative effects associated with the development in combination with other data centre developments.
- 4.81 The Colin Doyle appeal argues that *“ideally, all new developments should be assessed at central government level by a state body to determine their potential impact on the emissions ceilings in their sectors, and projects either refused, or only limited emissions assigned to ensure that the ceilings are not breached”*.
- 4.82 While the appellant does go on to recognise that no such arrangement exists (nor is there any basis for it), he goes on to opine that the situation whereby Planning Authorities are left to assess cumulative impacts, is not satisfactory. The appeal argues that *“this is clearly an unsatisfactory situation, as the EIAR considers only an individual project, and lacks overview of the cumulative effects of other similar Proposed Developments or planned future developments in the state, which may be*

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<sup>11</sup> Para 24, [2021] IEHC 422

<sup>12</sup> Para 24, [2021] IEHC 422

<sup>13</sup> Para 24, [2021] IEHC 422

*unknown to the professional environmental assessor*". It is argued that this can lead to multiple projects being permitted without addressing their overall environmental impact.

- 4.83 The appeal goes on to state that the current application considered only indirect cumulative impacts arising from the activities carried out within the physical boundary of the site in question. It is further stated that, while *"it is not a requirement of an EIAR that an assessor include the impact of their full portfolio of completed similar projects"*, the appellant has compiled details of other data centre projects for which AWN Consulting prepared EIARs. The appellant argues that the combined impacts of these projects would be profound.
- 4.84 The Mannix Coyne appeal puts forward a similar argument, stating that the cumulative impacts of all data centre developments combined have not adequately been taken account of.
- 4.85 The Friends of the Earth appeal states that the argument that GHG emissions have cumulative effects at a global level undermines the legitimacy of the assessment undertaken. It is contended that *"this leads to the outlandish conclusion that only an assessment of all projects at the same time can only (sic) be assessed"*.
- 4.86 We note the Board's decision in regard to ABP Reg. Ref. 310729-21 in which An Taisce and Friends of the Irish Environment appeals argued that permission for data centres are being granted on a case by case basis in Ireland, without addressing wider cumulative impacts in terms of water and energy use. These appeals focused in particular on the cumulative assessment of secondary effects arising from energy usage and demand precipitated by data storage facilities (data centres). In their conclusion the Inspector stated that: *"It is considered that, subject to compliance with the conditions set out below, the Proposed Development would accord with national, regional and local planning, it would not have a significant impact on climate or legally binding national emissions targets in relation to GHG..."*.
- 4.87 With regard to the consideration of environmental effects arising from energy usage, the same Inspectors report stated the following:
- "There is evidently an EU-wide strategy in place to ensure that GHG emissions targets are met, including from large energy users such as the proposed development and, in this context, I do not consider the proposed development is inconsistent with national climate and environmental policy objectives."*
- 4.88 In a further case in which similar arguments were raised with regard to the assessment of secondary cumulative impacts, the Inspector's Report for ABP Reg. Ref.: 307546-20 stated the following:
- "The concerns raised by several parties (incl. An Taisce & Friends of the Irish Environment) in relation to the consideration and assessment of cumulative impacts on a national and regional scale with respect to a number of issues (incl. climate change mitigation targets, energy consumption, water resources & data centres) are noted. However, I would not concur with this view and I am satisfied that the assessment of cumulative impacts in-combination with other plans and projects in the surrounding area is appropriate. The proposed development, as amended by the omission of the energy centre would not give rise to any significant adverse local or cumulative impacts in-combination with other developments in the surrounding area."*
- 4.89 As part of the response to this appeal the Applicant set out that planning policy supports the delivery of data centres in Ireland and at locations such as the Proposed

Development site. Proposals for data centre developments are assessed at a site level and also in relation to extended regions and environments and under the same broad planning context, allowing for local variations. The supporting planning policy framework (including the NPF and the RSES for the EMRA) has itself been subject to environmental assessment at a strategic level. In assessing a range of similar development proposals, the Board has applied its understanding of the role and operation of data centres in Ireland, based on national, regional and local planning policies.

- 4.90 In the case of the Proposed Development, and other data centre developments, these proposals are assessed against information in relation to the specific sites in question and, also, in relation to extended regions and environments (as a result of environmental assessments and screenings).
- 4.91 An issue analogous to that raised by the appellants above was considered by the High Court in *Coyne v An Bord Pleanála*<sup>14</sup> (Mr Coyne is also an appellant on the current application), with the following noted:

*“Electricity is as much an input to the productive capacity of the Data Centre as was the milk an input to cheese production in the Kilkenny Cheese case. Insofar as that analogy stretches – I think it partially does – it suggests that the rationale of the Kilkenny Cheese case should apply to limit the extent of consideration in EIA of the Data Centre of the CO2 emissions in question in this case. The element of that rationale which remains relevant, despite the identification of the CO2 emissions of electricity generation as an indirect effect of the Data Centre for EIA purposes, is that the proper scope of the EIA Directive should not be artificially expanded and conscripted into the general fight against climate change by being made to do the work of other legislative measures. As I have said, I agree also with Humphreys J. that wider indirect environmental consequences must be assessed at a programmatic level.”* (Para. 210 (c))

- 4.92 The same judgement went on to state the following at Paragraphs 211 to 214:

*“211. I referred earlier to the description of the ETS in Milieudéfensie. In an analysis of some present relevance, the Hague District Court also observed in that case that “The indemnifying effect of the ETS system means that – insofar as it concerns the reduction target of the ETS system – RDS does not have an additional obligation with respect to Scope 1 and 2 emissions in the EU that fall under the system.” The Hague District Court also observed that “the ETS system only covers a small part of the Shell group’s emissions. Only for these emissions, RDS does not have to adjust its policy due to the indemnifying effect of the ETS system.” The court’s ultimate reasoning was more complex (as to shortfalls between what reductions ETS would achieve and overarching reduction targets it imposed on RDS).*

*212. However the only GHG emissions in issue in the present case – the Scope 2 emissions of electricity generation to power the Data Centre - are all covered by the ETS. In that light Milieudéfensie can be seen to have adopted the reasoning urged in opposition to the Coyne’s in this case as to the significance of the ETS – which is described in Milieudéfensie as the cornerstone of EU climate policy and as an important tool to cost-effectively limit CO2 emissions. Paraphrasing the Hague District Court, one would say that the indemnifying effect of the ETS system means that – insofar as it concerns the GHG cap of the ETS system – EngineNode does not have an additional obligation with respect to Scope 2 emissions of the Data Centre that fall under the system. For these emissions, EngineNode does not have to adjust its policy due to the indemnifying effect of the ETS system. It is not apparent*

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<sup>14</sup> [2023] IEHC 412

*to me that this observation is any the less valid because we are concerned with a prospect of development rather than with an existing enterprise.*

*213. These observations seem to me to illustrate that, while EIA of a project must consider “energy demand and energy used”, “climate”, “climate change”, “climate (including GHG emissions)” and “the impact of the project on climate (including the nature and magnitude of GHG emissions), it suffices in EIA of a particular project, in which its indirect and cumulative effects by way of electricity generation of CO2 emissions are at issue, to do as was done here. Namely to identify and quantify energy demand and energy used, to identify and quantify the nature and magnitude of nature and magnitude of GHG emissions likely to result from that energy use (recognised in the papers as up to 180mw and 1,577 GWh annually) and to examine and analyse their contribution to national GHG emissions of the electricity generation sector in the context of the ETS and national policy to transition towards renewable electricity generation.*

*214. It does not appear to me that it is necessary, or even possible, to go further by way of an attempt to discern the cumulative effect of the project on future substantive climate change events, much less effect on a small number of individuals who, irrelevantly for this particular purpose as the effects will be caused elsewhere and occur on a global scale, happen to live beside the Data Centre. I confess to imagining that such an exercise, as to the effects by way of electricity generation of CO2 emissions due to this project (which, in EIA is always the issue – even as to cumulative effect) would be speculative to the point of uselessness.”*

- 4.93 With regard to the argument that the current application should have considered all other permitted and proposed data centres in Ireland, or even a subset of these which the current application consultants had been involved in, it is submitted that assessment of that nature is not appropriately addressed at the level of an individual application, but rather falls to be addressed at the level of programmatic measures. For further responses in relation to the grounds of appeal relating to the assessment of the development against programmatic measures (and in particular the European Emissions Trading Scheme and the national sectoral emissions ceilings), we refer to the following sections of this appeal response.
- 4.94 The Colin Doyle appeal itself acknowledges that there is no obligation for the individual applicant to assess all known developments of a similar nature in the state (stating that “*it would be unreasonable to expect the environmental assessor to have knowledge of all proposed current and future developments in the state*”). The consideration of the overall impact of an entire class of development is indeed more appropriate at a programmatic rather than a project level. In fact, the Government did undertake to address the continued development of data centres at a national level within their publication of the Government Statement on the Role of Data Centres in Ireland’s Enterprise Strategy (2022), which sets out six principles for sustainable data centre development (with which the Proposed Development is fully aligned). In addition, the EIAR submitted with the application provided a robust assessment of cumulative impacts, and there is no requirement for the undertaking of an assessment of all other data centres, or even a subset of them.
- 4.95 The Proposed Development itself is consistent with the policies of the NPF and the RSES which strongly support development of this nature, and is in keeping with the principles for sustainable data centre development set out within the Government Statement on the Role of Data Centres in Ireland’s Enterprise Strategy (2022). The application was accompanied by an EIAR which includes an assessment of cumulative impact as relevant to the Proposed Development, and it is not for the individual application to present an assessment of the broader impact of data centre

development on electricity demand or GHG emissions. These matters are appropriately dealt with at the level of programmatic measures as set out above.

4.96 With regard to the trade-off implied between the permitting / proposing of a range of other data centre developments referred to in the Colin Doyle appeal, and the achievement of the sectoral and national emissions targets, the judgement in *Coyne v An Bord Pleanála*<sup>15</sup>, noted that *“It is emphatically for the Government and the Oireachtas to decide what those trade-offs ought to be. That is not to suggest that a particular choice is right or wrong - as to which there can be directly conflicting yet reasonable views. It is to emphasise that the balance between, and resolution of, those desiderata [sic] of development of data centres and reduction of GHG emissions is an issue of policy to be decided by the executive and legislature rather than by the courts.”*

4.97 In addition to the above, the accompanying AWN response document (Appendix 3) sets out in detail how the method of assessing cumulative climate impact arising on foot of the Proposed Development has been carried out in accordance with the latest IEMA guidance on *“Assessing Greenhouse Gas Emissions and Evaluating their Significance”* (IEMA, 2022). The AWN response states the following:

*“From a climate perspective, the Institute of Environmental Management and Assessment (IEMA) guidance note on “Assessing Greenhouse Gas Emissions and Evaluating their Significance” (IEMA, 2022) has noted, on Page 21, that:*

*“The atmospheric concentration of GHGs and resulting effect on climate change is affected by all sources and sinks globally, anthropogenic and otherwise. As GHG emission impacts and resulting effects are global rather than affecting one localised area, the approach to cumulative effects assessment for GHGs differs from that for many EIA topics where only projects within a geographically bounded study area of, for example, 10km would be included.”*

*The guidance states, on Page 21, that when considering the cumulative assessment,*

*“All global cumulative GHG sources are relevant to the effect on climate change, and this should be taken into account in defining the receptor (the atmospheric concentration of GHGs) as being of “high” sensitivity to further emissions.*

*Effects of GHG emissions from specific cumulative projects therefore in general should not be individually assessed, as there is no basis for selecting any particular (or more than one) cumulative project that has GHG emissions for assessment over any other.”*

*The guidance furthermore states, on Page 21 of IEMA 2022, in terms of contextualization of the GHG emissions:*

*“The contextualisation of GHG emissions ..... should incorporate by its nature the cumulative contributions of other GHG sources which make up that context. Where the contextualisation is geographically – or sector-bounded (e.g. involves contextualising emissions within a local authority scale carbon budget, or a sector level net zero carbon roadmap), then the consideration of cumulative contributions to that context will be within that boundary.”*

*Thus, the assessment of the Proposed Development evaluated direct operational climate impacts from the backup generators for the Proposed Development scenario*

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<sup>15</sup> [2023] IEHC 412

*and the masterplan of the Overall Project including a potential future phase of development. In addition, for the Proposed Development scenario and the masterplan of the Overall Project including a potential future phase of development, the indirect GHG emissions from the electricity supplied to the site was also evaluated.*

*In line with the contextualization of the GHG emissions outlined in IEMA 2022, the assessment outlined in the Addendum to Chapter 9 of the EIAR also considered the cumulative direct and indirect emissions both on an EU wide basis (as a percentage of the EU ETS) and in terms of the most relevant national target (as a percentage of the electricity Sectoral Emission Ceiling) for the baseline scenario, Proposed Development scenario and the masterplan of the Overall Project.”*

- 4.98 Having regard to the foregoing, the approach adopted in assessing cumulative impact was clearly robust and in accordance with the relevant guidance, and it is clear that any higher level assessment of the cumulative effect of a large number of similar projects (or even an entire class of development nationally) is not an exercise which the Board is required to engage in at a project level, but rather is a matter which is appropriately dealt with by the relevant authorities at a programmatic level.

#### **Accuracy of Climate Assessment, Conclusions on Climate Impact, and Consideration of Reasonable Worst Case**

- 4.99 The John Conway and Louth Environmental Group (by reference to the second Colin Doyle submission to Fingal County Council following the submission of the Further Information Response), Colin Doyle (pages 11-14 of the appeal and appeal appendix), and Mannix Coyne (page 1 of the appeal) appeals argue that (apart from the use of CPPAs as mitigation, as dealt with above), the climate assessment included within the EIAR, as supplemented at Further Information stage, mischaracterised and underestimated the impact of the Proposed Development.

- 4.100 In summary, the following key grounds are raised in this regard:

- The appellants argue, the EIAR didn't take account of impact on the ceiling for Ireland's Electricity Sector. The appellants argue that as the development would result in additional emissions, the impact should be characterised as significant adverse rather than moderate adverse, as the IEMA guidance dictates this for developments which would not be aligned with the pathway to net zero.
- The appellants argue that the assessment should have addressed a reasonable worst case scenario, whereby all additional demand would have been met by way of additional conventional generation.
- The appellants argue that the Proposed Development would, immediately on operation, give rise to a new demand for 73MW of electricity which will be supplied through additional conventional (fossil fuel derived) generation.
- The appellants argue that as if the assessment were based on the assumption that conventional generation would be used, the resulting impact would be even more significant.
- The appellants argue that Table 1.10 of the AWN FI response incorrectly stated data as prior to mitigation, even though they reflect an assumed 80% renewable generation.
- The appellants argue that the predicted impact both before and after mitigation is understated, and that the predicted impact should not have assumed that 80% renewables penetration would be achieved.
- The appellants argue that if the scenario of the development being powered by conventional fossil fuel derived generation was calculated, the impact

would be 8.8% for the project, and 26% for the overall site. While the assessment indicates the impact reducing to 'minor adverse' after mitigation, the same mitigation is heavily reliant on CPPAs, which it is argued will not in fact provide for additionality. The appellants argue that therefore the impact should stay at moderate under the best case scenario, and major for the worst case (conventional generation) scenario.

4.101 The AWN response document (Appendix 3, under Response Item A4) provides a point-by-point response to the foregoing grounds of appeal. While we refer the Board to the AWN document for the detail of this response, the key points can be summarised as follows:

- The proposed development will not result in new unforeseen demand as there is an existing connection agreement since 2017 and with that demand with that demand built into all forecasts, as such it will not affect sectoral ceilings or the predicted quantity of conventional (fossil fuel) generation.
- In addition to this, a CPPA for the power demand for the proposed project has been welcomed and conditioned under the Planning Authority's decision to grant permission (while a similar approach and condition by the Board would be welcomed).
- The categorisation of the predicted impact of the Proposed Development accords with the IEMA 2022 guidance, and the development's impact was correctly characterised as minor adverse post mitigation.
- The assessment in the EIAR Addendum submitted with the FI response was based on a reasonable worst case scenario in relation to greenhouse gas (GHG) emissions based on the following:
  - The climate assessment assumed 100% operation of the Proposed Development from 2025, at 100% load, whereas in reality the development will become operational on a phased basis over a period of c. 2.5 years. Thus the predicted GHG emissions presented in the EIAR addendum were worst case figures. The AWN response document predicts the more likely scenario based on the ramping of operations, which demonstrates a considerable reduction in GHG emissions (prior to any mitigation).
  - The assessment also assumed a continuous 100% operational load for the data centre development, however annual average load is likely to be closer to 80% (as outlined in the recent DECC publication "*Summary of Analysis to Support Preparation of the Sectoral Emissions Ceilings*" (DECC, 2022),
  - GHG emission factor for electricity was based on current reported levels (2021), decreasing linearly to 100 gCO<sub>2</sub>/kWh by 2030 in line with government policy, however latest SEAI estimates confirmed that the estimation for 2030 is currently 92.9 gCO<sub>2</sub>/kWh, meaning that the figures used were conservative.
  - It was assumed the electricity grid would reach net zero emissions by 2050, however the ESB have recently committed to achieving this by 2040.
- The appellant's suggestion that 100% conventional generation should be assumed to be the energy source for the development for the purposes of assessment defies reality; totally ignores a plethora of Government policy and related initiatives and Plans; ignores the extensive investment in renewable energy generation and power supply both within Ireland and within the power grids that Ireland is connected to; and does not consider the applicant's own renewable investments and record in recent years.

Suggesting 100% conventional generation as a basis for assessment is entirely incorrect and is not in line with a reasonable worst case scenario.

- The assumption of 80% renewable generation by 2030 is in fact a conservative assumption on a reasonable worst case based on the data available and the interpretation of the relevant climate guidance (IEMA 2020, 2022).
- The response sets out how the summarised conservative approach adopted aligns with the relevant guidance, and how the categorisation of predicted impact (both prior to and post mitigation) within the EIAR Addendum submitted as part of the FI response to the Planning Authority was entirely appropriate.

4.102 We refer to the AWN response document (Appendix 3) for further details.

### **The EU ETS and National Carbon Targets / Sectoral Emissions Ceilings**

4.103 The appeal submitted by Friends of the Earth (page 5 of the appeal) argues that the application placed undue weight on the inclusion of the indirect emissions from the Proposed Development within the EU Emissions Trading Scheme (ETS). It is contended that the application sought to overlook national climate targets and emissions ceilings by arguing that the 2021 and 2023 Climate Action Plans state that the emissions associated with the development would be subject to EU-wide rather than national targets. The appeal claims that Pages 44 and 45 of the AWN Further Information Response incorrectly state that the indirect electricity emissions and direct emissions on site will be compliant with section 13.3.5 of the 2023 Climate Action Plan (CAP 2023) by virtue of their requirement for GHG permits under the ETS. The appeal highlights that the EU ETS does not replace or take primacy over the national carbon budget.

4.104 The judgement of the High Court in *Coyne v An Bord Pleanála*<sup>16</sup> deals in detail with the relevance of the ETS, and the “*significant advantages over EIA of individual projects*” which the ETS possesses for “*controlling the indirect and cumulative effects of all the projects drawing electricity from the National Grid*” (Para. 210 (i)). The judgement also states the following:

*“Electricity is as much an input to the productive capacity of the Data Centre as was the milk an input to cheese production in the Kilkenny Cheese case. Insofar as that analogy stretches – I think it partially does – it suggests that the rationale of the Kilkenny Cheese case should apply to limit the extent of consideration in EIA of the Data Centre of the CO<sub>2</sub> emissions in question in this case. The element of that rationale which remains relevant, despite the identification of the CO<sub>2</sub> emissions of electricity generation as an indirect effect of the Data Centre for EIA purposes, is that the proper scope of the EIA Directive should not be artificially expanded and conscripted into the general fight against climate change by being made to do the work of other legislative measures. As I have said, I agree also with Humphreys J. that wider indirect environmental consequences must be assessed at a programmatic level. The legislative measure Hogan J had in mind was the Climate Act 2021 but the same reasoning seems to me to apply to the ETS Directive.”* (Para. 210 (c))

4.105 The judgement goes on to further state:

*“Beyond general and alarming predictions of dire climactic and weather events (which predictions may well be justified) no attempt was made, and I strongly imagine none is possible, to discern a reliable causative link between the CO<sub>2</sub>*

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<sup>16</sup> [2023] IEHC 412

*emissions specifically of the electricity to power the Data Centre and any of those events. ETS avoids the need for such speculations.*

...

*The ETS, as the “hard place” described above, inevitably has a quite direct effect on the formulation of national targets for transition to renewable electricity generation sources. These targets are now expressed as Government policy “commitments”. While perhaps not legally binding commitments justiciable by a private person, (that was not argued) they are at least expressions of Government policy in notably strong terms. Not merely is the Board obliged by statute to have regard to those policies as informed by ETS, it is entirely unsurprising and proper that the Board should attribute appreciable weight to them as, via the Inspector, it has done. Of course, it may be that litigants and others are sceptical, even rightly sceptical, of the policy, its commitments, the firmness of those commitments, whether they are achievable and whether they will be achieved. But, at least ordinarily, those are political – not legal – concerns.” (Para. 210 (i))*

4.106 The judgement states the following at Paragraph 213 (as quoted previously above):

*“it suffices in EIA of a particular project, in which its indirect and cumulative effects by way of electricity generation of CO2 emissions are at issue, to do as was done here. Namely to identify and quantify energy demand and energy used, to identify and quantify the nature and magnitude of nature and magnitude of GHG emissions likely to result from that energy use (recognised in the papers as up to 180mw and 1,577 GWh annually) and to examine and analyse their contribution to national GHG emissions of the electricity generation sector **in the context of the ETS and national policy** to transition towards renewable electricity generation” (emphasis added)*

4.107 In concluding on the grounds relating to indirect climate impact and the ETS, the judgement states:

- *“There are no direct CO2 emissions by the Data Centre (or at least none said to be significant for purposes of these proceedings).*
- *The Scope 2 CO2 emissions of the Data Centre are to be considered as indirect effects in EIA.*
- *The Scope 2 CO2 emissions of the Data Centre are described and assessed in the EIA in the manner required by the EIA Directive.*
- *Their assessment in EIA in light of their status as ETS emissions and in the context of the transition to renewable energy generation was in accordance with law.*
- *The significance of cumulative effect was adequately considered as a proportion of the national emissions of CO2 by electricity generation.*
- *The determination that the quantum of any effect would not be significant was impugnable only for irrationality and was not so impugned. But I may as well say that any such challenge would have failed.*
- *The consequential effects of those CO2 emissions of the Data Centre on global warming and climate change or on specific individuals are not to be considered as indirect or cumulative effects in EIA as they are remote, elusive, contingent, speculative and incapable of measurement.*
- *Any effects consisting of or consequential on those CO2 emissions are in any event, and clearly better, managed via programmatic measures – notably the ETS.” (Para. 215)*

- 4.108 Having regard to the judgement in *Coyne v An Bord Pleanála*<sup>17</sup>, it is clear that it is entirely appropriate to review the predicted impact of the Proposed Development in the context of the EU ETS. However, contrary to the arguments made in the appeals submitted, the current application has not sought to discount national targets in favour of focusing solely on EU ETS targets. On the contrary, as set out in the AWN Consulting response document on climate, the Proposed Development and its predicted impact has been considered specifically in the context of sectoral emissions ceilings which are set at a national level.
- 4.109 As set out within the AWN response document (Response Item A5), both the national and EU level legislative provisions relevant to indirect GHG emissions have been afforded due consideration and weight in the application. The AWN response summarises the relevant provisions of this legislation, and notes that “*both EU and national legislation are relevant and there is likely to be continual legislative overlap between both EU and national legislations as both parties move forward with the same goal of net zero / carbon neutrality by 2050*”.
- 4.110 We refer to the AWN response document for further details, noting the conclusion of the document on this matter as follows:

*“All relevant national and EU legislation has been reviewed at length in the EIAR and in the Addendum to Chapter 9 of the EIAR, The assessment approach was based on considering both EU and national legislations and determining which target was more onerous in terms of impact of the Proposed Development. In this case, the Sectoral Emission Ceiling was a more onerous target, and the impact of the assessment was based on both the pre- and post-mitigation impact of the Proposed Development relative to the Electricity Emission Ceiling. Additionally, a CPPA for renewable energy located in Ireland is proposed for the project and hence will not be relying solely on ETS/GHG permits as mitigation.”*

- 4.111 Thus, having regard to the above and accompanying responses, while the EU ETS remains a valid and relevant consideration in respect of the indirect impact of the Proposed Development, the national sectoral emissions ceiling for the Electricity Sector has also been fully considered in the application.

**Consistency with section 15 of the Climate Action and Low Carbon Development Act 2015, as amended**

- 4.112 The John Conway and Louth Environmental Group (ground (a) of the appeal), Friends of the Earth (pages 1-2 of the appeal), and Mannix Coyne (pages 2-3 of the appeal) appeals each refer to section 15 of the Climate Action and Low Carbon Development Act 2015, as amended.
- 4.113 Section 15 of the Climate Action and Low Carbon Development Act 2015, as amended states the following:

*“(1) A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—*

- (a) the most recent approved climate action plan,*
- (b) the most recent approved national long term climate action strategy,*
- (c) the most recent approved national adaptation framework and approved sectoral adaptation plans,*
- (d) the furtherance of the national climate objective, and*

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<sup>17</sup> [2023] IEHC 412

*(e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.”*

- 4.114 The appellants contend that the Proposed Development would not be in keeping with this section of the Act, and that on that basis, permission should be refused.
- 4.115 Contrary to the submissions by the appellants, it is submitted that the Proposed Development is consistent with section 15 of the Act, as set out in detail within the accompanying response document prepared by AWN. We refer to the AWN response document (and in particular Response Item A6) for further details.

#### **Consistency with the Climate Action Plan 2023 Statement on Large Energy Users and Just Transition**

- 4.116 The John Conway and Louth Environmental Group (ground (a) of the appeal), Friends of the Earth (page 5 of the appeal), and Mannix Coyne (page 2 of the appeal) appeals each highlight the following provision of the 2023 Climate Action Plan:

*In the short- and medium-term, **new demand** growth from large energy users, such as data centres, will have to be moderated to protect security of supply and ensure consistency with the carbon budget programme.” **[emphasis added]***

- 4.117 Each of these appeals argue that the Proposed Development is inconsistent with the foregoing provision of the Climate Action Plan, or that this provision has not been adequately addressed.
- 4.118 A footnote in the Climate Action Plan at the end of the above quote provides a link to the Government Statement on the Role of Data Centres in Ireland’s Enterprise Strategy (2022) (page 139 of the Climate Action Plan refers). The implication is that the Government Statement and the guiding principles it contains for sustainable data centre development will achieve the aim of moderating new demand growth to protect security of supply and ensure consistency with the carbon budget programme.
- 4.119 The compliance of the Proposed Development with that Statement, and each of the principles contained therein, has been set out in detail within the application Planning Report (Section 7 refers) and supplemented in the Further Information Response to Fingal County Council. Additional response to arguments pertaining to the compliance of the development with the Government Statement is addressed below.
- 4.120 The Proposed Development is in line with the foregoing extract from the 2023 Climate Action Plan, and additionally the Proposed Development does not represent “new demand growth” as the energy requirements of the Proposed Development, in their entirety, are provided for under an existing connection agreement dating originally from 2017, which remains valid. This means that the development’s projected electricity usage has already been accounted for by the Transmission System Operator (EirGrid) and does not constitute additional unplanned demand or ‘new demand growth’.

- 4.121 As set out in Further Information Response 3(b) states:

“The Government Statement (page 10, paragraph 3) fully acknowledges that transmission infrastructure has been established to accommodate data centres. It states that *‘in the Greater Dublin region, the transmission system has been extended to cater for additional demand, in particular from data centres, with new substations and associated transmission circuits built. However, Dublin’s transmission system has been pushed to its limit, with EirGrid advising the region will not be able to*

*accommodate **new** requests for power from data centres until significant reinforcement of the transmission network is delivered, through the Power Up Dublin Plan.*' (emphasis added)

The Proposed Development does not entail a new request for power, because it as an existing connection agreement. The Proposed Development will be supplied by the existing transmission system which has been extended via a contestable development to cater for the additional demand foreseen in the connection agreement signed in 2017. In addition, the energy provided under the connection agreement forms part of the established EirGrid Generation Capacity Statement.

- 4.122 Additionally, it should be noted that the Climate Action Plan refers to 'moderation of new demand growth', and not to a complete moratorium on data centre development. The Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) effectively seeks to 'moderate' growth in demand from DCs, by narrowing the type of projects which will gain permission and be accommodated, via the principles contained therein. The Proposed Development meets each and every one of those principles as noted above.
- 4.123 On the 29<sup>th</sup> of September 2021, in response to a Private Members Motion seeking a moratorium on data centre development, Minister Eamon Ryan states that "*Calls for a moratorium on data centre connections would be a blunt policy response. We are better served to enable the transition to a zero-carbon electricity system through policy and regulation*".
- 4.124 The Proposed Development represents data centre development which fully aligns with the Government policies published since the foregoing statement by the Minister, including the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) (discussed in further detail below), and the 2023 Climate Action Plan.
- 4.125 The Colin Doyle appeal also argues (at pages 16 and 17) that the level of employment provided by the Proposed Development would be low, and that the level of carbon emissions associated with the Proposed Development, when divided by the number of jobs, would represent a high level of carbon emissions per job. It is argued that this would be contrary to the principle of a just transition embedded in CAP23.
- 4.126 However, this ground of appeal is firstly based on the assumption that the CPPA to be entered for the energy use of the Proposed Development would not represent 'renewable additionality' and secondly on the assumption that the only employment arising on foot of the Proposed Development would relate to directly employed operatives during the operational stage of the development.
- 4.127 With regard to the first of these assumptions, this appeal response has clearly set out that the applicant intends to enter into a CPPA which will in fact provide for additionality of renewable generation, contrary to the claims of the appellant. Furthermore, as discussed in the next section of this report, the economic and employment impacts of AWS' operations are not limited to those employed directly within each data centre building, but rather encompass a very significant level of direct, indirect and induced employment associated with both the construction and operational stages of data centres and the services provided by AWS via this important infrastructure.

### **Consistency with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022)**

- 4.128 The appeal submitted by Colin Doyle (pages 17-19 of the appeal) argues that contrary to the statements set out within the planning application and Further Information Response to Fingal County Council, the Proposed Development is not compliant with the principles for sustainable data centre development set out within the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022).
- 4.129 The appeal sets out these arguments under each of the individual principles. While these arguments are considered to be incorrect, and it is submitted that compliance with the principles was fully demonstrated in Section 7 of the permitted Planning Report submitted to the Planning Authority, and within the Further Information Response, it is nonetheless considered appropriate to respond to the appellant's contentions under each of the relevant principles in turn, and to provide a summary of the development's compliance with the principles. The following sections have been prepared with input from the applicant.

#### *Economic Impact*

- 4.130 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 spillover 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.”***

- 4.131 The appellant argues, in the context of the grounds of appeal relating to 'just transition', that the level of employment arising from the development would be c. 100 jobs, that there would be no clear wider economic stimulus for Ireland on foot of the project, and that the development will primarily lead to economic growth elsewhere in the world. It is also argued that tax contributions by Amazon operations in Ireland 'appear to be miniscule'.
- 4.132 The interpretation of this principle of the Government Statement put forward by the appellant is clearly incorrect. The appellant seeks to characterise the employment generated by the Proposed Development as inconsequential, and also ignores the direct requirement under this principle that *“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”*. Additionally, the appellant appears to have overlooked much of the information provided within the original application that clearly established full alignment with this principle.
- 4.133 With regard to the direct and indirect economic and employment benefits associated with the Proposed Development, Section 7 of the submitted Planning Report provided a detailed review of the impact that AWS' operations in Ireland have in terms of direct investment, economic growth, job creation, and positive impact on

domestic suppliers and service providers. The figures provided within the submitted Planning Report originated from analysis undertaken by Indecon which covered a period up to 2020.

- 4.134 In the intervening period since the submission of the application to Fingal County Council (and indeed since the submission of the third party appeals), AWS have published a new detailed economic impact and employment report which was also prepared by Indecon (and which was published on the 26<sup>th</sup> of October 2023). A copy of the report is appended to this response document for reference (Appendix 5 refers).
- 4.135 This report provides an updated appraisal of the significant and far-reaching economic and employment benefits which AWS' presence in Ireland and continued investment in digital infrastructure has engendered.
- 4.136 The report outlines the following *inter alia*, underlining the clear compliance of the current development proposal with the first principle of the strategy:
- AWS now support more than 10,000 jobs in Ireland, including over 4,200 direct AWS employees, 3,000 employees working for AWS suppliers and sub-contractors, and 2,900 jobs linked to their Irish investments.
  - Direct employment at AWS has grown at an average annual rate of 38% over the past decade.
  - AWS investment has increased economic output by over €11.4 billion since 2012.
  - AWS investment supported €2.4 billion in economic output during 2022 alone, a ten-fold increase on the equivalent figure for 2012.
  - AWS capital investment in a typical data centre campus leads to an additional €604 million each year during construction, supporting an average of 2,250 jobs annually.
  - Following construction, an AWS data centre campus supports over 250 full time roles on an annual basis, with a total economic output of €381 million annually.
- 4.137 This up to date economic and employment data clearly contradicts and disproves the arguments put forward by the appellant in this regard.
- 4.138 With regard to the stated objective under this principle to “*embed the technology sector in locations and communities that can benefit from this investment, employment and spillover effects*”, it is noted that, whilst the Proposed Development relates to the orderly and logical next phase of an established data centre campus, the positive impacts of the development and ongoing AWS investment in the Fingal and Blanchardstown area should nonetheless be highlighted. These positive impacts have been set out in detail within the submitted Planning Report, while further details in relation to positive impacts on the local community are set out under the final principle of the Government Statement below.
- 4.139 With regard to the argument put forward by the appellant relating to tax contributions, this point is irrelevant to the consideration by the Board of the Proposed Development.

#### Grid Capacity and Efficiency

- 4.140 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).”*

- 4.141 With regard to this principle, the appellant contends that, while electricity infrastructure funded by the developer is in place, with capacity to serve the Proposed Development, there is no evidence that the proposals will alleviate potential future national grid constraints. It is argued that the development will represent an additional load on the grid of 73MW, and that the applicant has not set out proposals to provide demand flexibility to alleviate constraints on a regular or prolonged basis. The appellant argues that backup generators on site could not be used to alleviate grid constraints, based on the impact that prolonged run times would have on residential receptors’ air quality, and the conditions applied by Fingal County Council.
- 4.142 In response to the foregoing, we refer the Board to the Planning Report submitted with the application, and in particular the Further Information Response 1(a) submitted to the Planning Authority, which provided a significant level of detail, in relation to this and each of the other principles. It is submitted that, on the basis of the information provided, the appellant is clearly incorrect in claiming that alignment with this principle has not been achieved.
- 4.143 With regard to this principle, the documentation previously submitted has set out the following in summary:
- A connection agreement for the development, inclusive of the Proposed Development has been in place since 2017 and remains valid. This means that the development's projected electricity usage has already been accounted for by the Transmission System Operator and does not constitute additional unplanned demand.
  - The CRU Direction (CRU/21/124) does not apply to the Proposed Development, as the relevant connection agreement predates the Direction.
  - The Proposed Development will be supplied from the existing Cruiserath 220kV Substation which is located on the overall AWS landholding. The Cruiserath 220kV Substation was developed by AWS, as a contestable development under Planning Register Reference ABP Reference: VA 06F.306834.
  - To enable more effective planning by Eirgrid and more efficient use of the grid, AWS sought a revision to the original connection agreement. The original connection agreement required all the power to be made available once the Cruiserath 220kV substation entered into operation (i.e. 2022). The revised connection agreement sought incremental provision of power to ensure that power was only requested when required. The revised connection agreement provides for eight incremental ramps (increases) in power supply to the site, commencing in 2022 and completing in 2029 – with an incremental ramp occurring on 1 January of each year.
  - The change to incremental provision of power ensures that power is only requested and reserved when required – this is clear evidence of AWS’

engagement with EirGrid to ensure efficient use of the grid and to alleviate constraints that may otherwise have occurred.

- 4.144 The Colin Doyle appeal incorrectly claims that the Proposed Development will represent an “*immediate increased power demand of 73MW*”. This assumption is fundamentally incorrect. As set out in the Further Information Response, the following is the case:

*“As set out in Section 1.14 of the Planning Report, to enable more effective planning by Eirgrid and more efficient use of the grid, AWS sought a revision to the original connection agreement. The original connection agreement required all the power to be made available once the Cruiserath 220kV substation entered into operation (i.e. 2022). The revised connection agreement sought incremental provision of power to ensure that power was only requested when required. The revised connection agreement provides for eight incremental ramps (increases) in power supply to the site, commencing in 2022 and completing in 2029 – with an incremental ramp occurring on 1 January of each year.”*

- 4.145 The connection agreement confirms that power for Building E is available immediately while power for Building F will be made available in 2026 and power for Building G will be made available in 2027.

- 4.146 Once that power becomes available, the reality is that the demand for power from the Proposed Development will ramp incrementally, rather than arising at once. As set out in the EIAR, and the AWN Consulting response (Chapter 2 of the EIAR and Response Item A4 of the AWN response document), the Proposed development is to be constructed on a phased basis commencing following any grant of permission for the development, and as set out within the AWN response document, the Proposed Development will be constructed on a phased basis with Building E being constructed first, followed by Building F, and finally Building G. Construction works on one building will be nearing completion prior to works beginning on the next building. In addition, it’s worth noting that the Proposed Development is designed for today’s computing needs but also takes account of future needs. Once operational the IT equipment within the Data Centre(s) may not utilise all power available (at each phase of the fitout), instead the power draw from the facility will ramp up over time with advances in IT equipment and compute power (Moore’s Law).

- 4.147 The Colin Doyle appeal also contends that the conditions (11 and 12) applied by Fingal County Council restrict the operation of the generators on site (and the applicable air quality standards), and mean that the generators cannot be used to “*provide a regular service to alleviate strain on the Irish Grid*”. The appellant is incorrect, Fingal County Council have not applied a planning condition which restricts the use of the backup generators based on an instruction or request from the Utility. To apply such a condition would negate the primary purpose of backup generators: to provide temporary power in the event of utility supply (including related infrastructure) being unavailable. Condition 11 as applied by Fingal County Council requires the details of the selected generators to be submitted in line with Best Available Techniques. Condition 11 read in full:

*11. To minimise the impact on air quality, health and climate, prior to the determination of the number and type of emergency generators on site, prior to commencement of development, the developer shall submit details for the written agreement of the Planning Authority which demonstrate that the lowest possible numbers of generators with the lowest possible nitrogen oxide emissions have been selected for the site while achieving the required power for the site.*

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- 4.148 Furthermore, Condition 12 applied by Fingal County Council restricts the testing sequencing of generators, and requires the use of HVO as fuel subject to availability (as was proposed by the Applicant to the Planning Authority). It does not place a restriction on the backup operation of the generators.
- 4.149 Based on the foregoing, it is submitted that the proposal clearly aligns with this principle, and the arguments put forward by the appellant are without merit.

*Renewable Additionality*

- 4.150 The third Principle set out relates to additional renewables associated with data centre operations. This principle is as follows:

***“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.”***

- 4.151 The appeal refers to the arguments set out in relation to the additionality of any CPPA to be provided in respect of the Proposed Development. These arguments have been responded to in detail above, and it has been established that the development will provide for additionality in line with the Government Statement, contrary to the views of the appellants.
- 4.152 On this basis, clear alignment with this principle is established. Further details are contained within Section 7 of the Planning Report submitted with the application and within the Further Information response submitted to Fingal County Council.

*Co-Location or Proximity with Future-Proof Energy Supply*

- 4.153 The fourth Principle set out within the Statement is as follows:

***“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.”*

- 4.154 The appeal argues that this principle cannot be complied with in respect of the Proposed Development, as the site is suburban with limited space. It is stated that the district heating proposals which are set out in compliance with this principle “*can be dismissed as greenwashing*” as “*housing density in the vicinity of the site is quite low, and there are no significant local heat loads*”. The appeal states that the installation of district heating systems to supply local homes would be costly, that the

level of carbon emissions savings could be more readily achieved via thermal upgrades to houses, and that the use of such a scheme would tie the heat system to a commercial use with a limited lifespan. The appeal also refers to the plans for heat offtake from the Poolbeg waste to energy plant, which have not been realised.

4.155 Section 7 of the submitted Planning Report sets out in detail the alignment of the Proposed Development with this principle. In summary, the following is noted:

- While the site and its context does not allow for large scale renewable generation, AWS will fully comply with the foregoing principle whereby the energy use for the Proposed Development will be met with a CPPA for new renewable energy generation.
- The development incorporated the maximum possible area of solar PV panels at roof level of the buildings.
- The development incorporates design provisions to facilitate district heating including heat distribution pipework up to the site boundary.

4.156 It is notable that the appellant focuses in particular on the references to proposals for district heating. The appellant claims with certainty that district heating is simply not feasible and that it would prove too costly. The appellant is incorrect in this regard.

4.157 To date, AWS's data centre in Tallaght is the first and only data centre in Ireland to supply recycled heat to a District Heating Scheme. The Tallaght District Heating Scheme (T-DHS) was developed by South Dublin County Council (SDCC) in collaboration with Codema – Dublin's Energy Agency. To support the T-DHS, AWS installed heat-collection systems in their Data Centre and are providing recycled heat to the T-DHS free of charge which, when combined with additional heat pump technology operated by Heatworks (an SDCC not-for-project Utility), is sold to end users at low cost. The T-DHS was officially opened by the Minister for the Environment, Climate & Communications and Transport, Eamon Ryan TD on April 6th this year.

4.158 The T-DHS will initially provide heat to 32,800m<sup>2</sup> of public buildings. Customers include SDCC and Technological University Dublin (TU Dublin). Buildings heated by the T-DHS include County Hall, Tallaght County Library, the SDCC Innovation Centre-Work IQ, and 133 affordable apartments, which will connect in early 2025. The university buildings include the main building, the sports-science, health & recreation building, followed by the new catering college (CAET), to be completed in 2024.

4.159 Specific to the Proposed Development, as stated in the submitted Planning Report (section 7.27 – 7.33), AWS has been actively supporting Codema with the aim of developing district heating proposals to use the Proposed Developments' waste heat. At the time of submission the feasibility report was in its early stages however AWS committed to ensuring that *"the design of the Proposed Development is future proofed to include heat distribution pipework to the site boundary and the spatial requirements to allow heat recovery equipment be installed at a later date – thus allowing AWS to provide recycled heat free of charge should a DHN be implemented in the area."*

4.160 Significant progress has now been made in this respect. In February 2023, an Outline Business Case for the Blanchardstown District Heating Scheme (B-DHS) was prepared by Codema on behalf of Fingal County Council (FCC). A comprehensive 82 page document, the Outline Business Case notes that:

*Fingal County Council (FCC) is proposing to implement the Blanchardstown District Heating Scheme (BDHS). The proposed system seeks to utilise a low temperature waste heat source from a nearby data centre through a large-scale heat pump to supply space heating and hot water to a university campus, public hospital, and a national sports facilities campus in its first delivery phase. The system will also have the capacity to supply other nearby interested customers in the public and private sector in the following phases.*

*The results of this analysis show the proposed district heating scheme is the preferred option as it provides more technical and socio-economic benefits than a 'Business as Usual' (BAU) approach and aligns with national and local level objectives.*

*The carbon emissions of the existing gas-fired heat supply are reduced by 54% (6,400 tonnes of CO<sub>2</sub> per annum) and will continue to reduce as more renewable electricity is available from the grid to power the heat pump.*

*The Amazon data centre is the preferred waste heat source as it can meet the heat demand of both Phase 1 and 2 of the BDHS. The energy centre will be located at the Amazon site, and will hold the heat pumps, back-up boilers, and thermal storage units. (subject to a separate consents process).*

- 4.161 AWS remain resolutely committed to supporting the B-DHS and are awaiting next steps from which include signature of a memorandum of understanding (MOU) to support the B-DHS move to the next phase of execution.
- 4.162 With regard to the reference to private wire in the above principle, it is noted that there is currently no statutory or policy provision for private wire arrangements in Ireland. A public consultation in relation to private wire concluded on the 27<sup>th</sup> of October 2023, with the aim of a private wires policy being launched by Government in 2024<sup>18</sup>. The applicant would consider utilising private wire arrangements in future, however currently it is not possible to do so.
- 4.163 Based on the above, clear alignment with this principle has been demonstrated, and the appellant's unsubstantiated claims that district heating would not be feasible at this site are disproven.

#### *Decarbonised Data Centres by Design*

- 4.164 The fifth Principle set out within the Statement is as follows:

***"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)."*

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<sup>18</sup> <https://www.gov.ie/en/consultation/63e1c-private-wires-consultation/#:~:text=The%20aim%20of%20this%20consultation,a%20policy%20change%20may%20present.>

- 4.165 The appeal argues that the proposal will rely on the grid for power, and that “*it is most likely that the additional base load will need to be supplied by fossil fuel power plants*”. It is further argued that “*there is no prospect of the Proposed Development providing net zero data services in the timeframe to 2030*”.
- 4.166 As set out in detail within Response Item A4 of the AWN response document (Appendix 3 to this appeal response), the contention that the demand arising from the Proposed Development will be supplied by fossil fuel power plants is incorrect and no basis has been provided for the assertion that it would be a “*more honest and transparent approach to assume that such developments are supplied by fossil fuel power stations.*”
- 4.167 As with each of the other principles, Section 7 of the submitted Planning Report included a detailed response to this principle, while further details are also provided in the Further Information response submitted to Fingal County Council. The Planning Report and Further Information outline, *inter alia*, the following:
- AWS is committed to building a sustainable business for its customers and the planet. In 2019, Amazon co-founded The Climate Pledge, a commitment to reach net zero carbon emissions by 2040, 10 years ahead of the Paris Agreement. As part of that commitment, the company is on a path to powering its operations by 100% renewable energy by 2025, five years ahead of its original 2030 target.
  - AWS has committed to being water positive by 2030, and is innovating to lower water use across facilities by using cloud technologies to continually improve water efficiency and investing in projects that deliver water back to communities. AWS will report annually on new innovations in water efficiency, community reuse, water replenishment projects, and other activities on its path to achieving its water+ commitment.
  - AWS is a founding member and signatory of the Climate Neutral Data Centre Pact.
  - The Proposed Development fully complies with the Climate Neutral Data Centre Pact. To reduce both the energy and water use in their Irish data centres, AWS use direct evaporative cooling systems, which predominately utilizes outside air to cool the servers.
  - The Proposed Development has been designed to the highest energy efficiency standards. Building Energy Rating BER - A3 or higher is targeted with the utilization of high efficiency VRF Air Conditioning. Available roof space has been utilised for roof mounted PV Panels to generate on site renewable electricity. The Proposed Development includes 2.5 times more Photovoltaic Solar Panels that would be required for a “Nearly Zero – Energy Buildings” requirements.
  - AWS has signed an agreement for Hydrogenated Vegetable Oil (HVO) to fuel the generators on site. This is discussed in further detail below in the context of grounds of appeal relating to the use of this fuel source.
  - The Further Information response outlines that the Proposed Development has an annual PUE (Power Usage Effectiveness) of 1.12 as compared to the 1.30 set under the Climate Neutral Data Centre Pact. In addition, the Proposed Development has a design Water Usage Effectiveness (WUE) of 0.075 L/kWh as compared to the 0.4 L/kWh set under the Climate Neutral Data Centre Pact.
  - Irish AWS operations are compliant with Article 8 of the EU Energy Efficiency Directive (EED) which requires large enterprises to be subject to energy audits. In anticipation of future requirements, AWS is currently implementing an ISO 50001 certified Energy Management System for continual energy efficiency improvements in the AWS’s Irish operations.

- AWS designed processors will be used in the data centres which use significantly less energy than comparable processors, while server racks will be subject to demanufacturing, with components reused wherever possible.

4.168 The applicant has clearly demonstrated a pathway to decarbonise and ultimately provide zero carbon data services, in line with this principle.

#### SME Access and Community Benefits

4.169 The final Principle set out within the Statement relates to SME access and community benefits arising from data centre development. This Principle states:

***“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 place-making, 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.”*

4.170 In relation to this principle, the appeal acknowledges that the Planning Report submitted with the application outlined a range of community initiatives. The appeal states that further detail ought to have been provided in this regard, including indications of the budget provided for (it is stated that community benefit schemes for wind farms publish funding for local projects).

4.171 Section 7 of the submitted Planning Report details the range of community benefits and benefits to SMEs associated with the Proposed Development. While we refer the Board to the Planning Report for details, it should be noted that the comments of the appellant appear to indicate a failure to review the information provided in the application.

4.172 Contrary to the appellant’s claims that the information provided was lacking in detail or indications of budget, Section 7 of the Planning Report, for example described a €150,000 fund, which will be managed and administered by non-profit organisation ChangeX, and is expected to support over 30 community projects in the Fingal area. Applicants can apply for funding up to €10,000 to launch a new idea or to expand an existing local project that supports an area of science, technology, engineering, arts, and mathematics education (STEAM), sustainability, or health and wellbeing.

4.173 A recent report by Indecon, referenced earlier in this response, found that AWS investment in community initiatives is complemented by the significant volunteer work undertaken by its staff. AWS employees undertook over 5,700 hours of voluntary work over the last five years. In 2022 alone, AWS staff gave up 3,200 hours of their own time to support local causes and communities. This includes supporting projects in local schools, hospitals, and community services. The value of this volunteering is assessed at over €200,000 by Indecon. Indecon also estimates that between initiatives funded by the AWS InCommunities programme (€3.5 million) and the value of volunteering provided by AWS staff (€200,000), AWS has invested nearly €3.7 million in community engagement since 2018.

4.174 Further details are also provided within the Planning Report in relation to measures to foster environmental stewardship and employee engagement in the community.

The significant benefits associated with AWS developments in Fingal for SMEs is also set out.

- 4.175 In addition to the extensive response to this principle provided in the submitted Planning Report, AWS have provided the following details for activities that have occurred since the original planning submission.
- 4.176 In 2023 AWS InCommunities launched the mobile Think Big Space programme. The mobile Think Big Space visits schools across the Fingal area to provide free access to STEM education workshops for students and teachers including coding through Lego robotics. Schools that have already benefited from free workshops include Rathdara Community College, St. Patricks Senior School, St. Brigid's National School, St. Luke's National school, St. Francis Xavier Senior School. Since April 2023 over 700 students and 35 teachers in the Fingal area have received the free educational workshops. In 2024 through further investment and increasing availability of school visits, the mobile Think Big Space programme will reach approximately 4,000 students in the Fingal area with 75% of those within the DEIS schools programme.
- 4.177 The AWS InCommunities Fingal Fund supports initiatives in the Fingal area that can make a positive impact across education, the environment, health and wellbeing. The €150,000 fund, which is managed by non-profit organisation ChangeX, has supported 36 separate projects in Fingal and the surrounding areas, like the Stepping Stones Ponds, Foróige Sound Cabin, and The Big Idea. More than 2,250 people have participated directly in these projects with a further 8, 600 people across Fingal benefitting from the projects so far.
- 4.178 Fingal Fund case studies:

Using Funding awarded by the AWS InCommunities Fingal Fund, Foróige Youth Officer Kevin Lacey is leading a project to turn a previously unused cabin into a state-of-the-art music studio for young people in the area. The funding has enabled Foróige to purchase instruments and audio production technology that service users wouldn't otherwise have been able to access. This includes a modular synth which is very useful for young people with ADHD (attention deficit hyperactivity disorder) and Autism, as they can find it more difficult to work for long periods at a computer when making electronic music.

A companion project of the Stepping Stone Forests, Stepping Stone Ponds are designed to complement the mini forests that AWS volunteers have been planting in schools across Dublin. The goal of installing the ponds and forests is to combat the twin threat of climate change and biodiversity loss, all while giving children from urban areas exposure to nature that they may not normally have access to. As a result of funding received from the AWS InCommunities Fingal Fund, all equipment needed to complete projects at local schools including native Irish trees, diggers and materials are covered by AWS.

- 4.179 Having regard to the foregoing and the details previously provided in the submitted Planning Report, the development is also fully aligned with this final principle.

### **Compliance with the Fingal County Development Plan**

- 4.180 The Friends of the Earth appeal argues (at page 7 of the appeal) that the application contained insufficient information to ascertain that the Proposed Development would not give rise to significant impacts on biodiversity and ecology.

- 4.181 It is alleged that the Proposed Development would materially contravene Objectives NH27, GI22, NH20, CH05, and CH06 of the Fingal Development Plan 2017-2023.
- 4.182 Firstly it should be noted that the appeal refers to a County Development Plan which has now been superseded, and which is therefore no longer the relevant Plan for the determination of the appeals by the Board. The Board must make its decision under the provisions of the operative Development Plan, which is the 2023-2029 Fingal County Development Plan.
- 4.183 The overall compliance of the Proposed Development with the 2023-2029 Plan was set out within the Further Information Response submitted to the Planning Authority (as the new Plan had come into effect after the lodgement of the application and after the initial decision of the Planning Authority to request Further Information). The Planning Authority issued a decision to grant permission having reviewed the compliance of the Proposed Development with the new 2023-2029 Plan.
- 4.184 Notwithstanding the foregoing, the current Development Plan does include objectives which are similar (but not identical) to those referred to by the appellant.
- 4.185 Contrary to the appellant's contention, the Proposed Development would not have materially contravened (and in fact complied with) the objectives of the previous Plan referred to, and complies with the equivalent provisions of the current, operative Plan.
- 4.186 The equivalent objectives of the operative Development Plan are addressed below.
- 4.187 Policy GINHP21 of the 2023-2029 Development Plan (which includes similar wording to Objective NH27 of the previous plan) states the following:
- “Protect existing woodlands, trees and hedgerows which are of amenity or biodiversity value and/ or contribute to landscape character and ensure that proper provision is made for their protection and management in line with the adopted Forest of Fingal-A Tree Strategy for Fingal.”*
- 4.188 A full arboricultural impact assessment report and tree survey and protection plan were included as part of the original application. The report states the following:
- “There are no trees required to be removed to facilitate the development. All retained trees can be successfully protected during the Proposed Development works by using robust fencing measures which comply with the recommendations outlined within BS 5837:2012. Please refer to the Tree Survey and Protection Plan at Appendix B for details.*
- The proposal includes significant new woodland planting that will enhance the existing tree cover on the site and have a positive impact on the local canopy cover and the landscape character of the surrounding area.*
- A 20-year Woodland Management Plan has been produced to ensure that a high standard of management is carried out post-construction to establish and maintain the existing and proposed woodland areas. This will improve the biodiversity and landscape character of the site and local area in the short and long term.”*
- 4.189 Based on the foregoing, not only does the Proposed Development clearly comply with Policy GINHP21, but it is also clear that the appellant did not have regard to the detailed documentation submitted with the application when claiming that the proposals would contravene an equivalent objective from the previous Development Plan.

- 4.190 Objective GI22 of the previous Development Plan required the submission of a green infrastructure plan for certain types of development. A similar requirement is included under the current Plan under Objective DMSO124, which states the following:

*“Require the submission of an Integrated Green Infrastructure Plan as part of planning applications for residential developments over 50 units and all commercial developments over 2000 sqm.”*

- 4.191 A Green Infrastructure Plan (Drawing no. 102) was prepared by the project landscape architect and was submitted with the application. The Proposed Development fully complies with the foregoing objective.

- 4.192 Objective NH20 of the previous Development Plan relates to the requirement for protection of ‘Nature Development Areas’. An identical objective is contained in the current Development Plan (Objective GINH037) which states the following:

*“Maintain and/or enhance the biodiversity of the Nature Development Areas indicated on the Green Infrastructure maps.”*

- 4.193 The subject site is not located within or adjacent to any Nature Development Area identified on the Green Infrastructure maps of the current Development Plan. This was also the case in respect of the previous Development Plan.

- 4.194 Objective CH05 of the previous Plan relates to the preservation of archaeological heritage, and Objective HCA07 of the current Plan reflects the same wording which is as follows:

*“Ensure archaeological remains are identified and fully considered at the very earliest stages of the development process, that schemes are designed to avoid impacting on the archaeological heritage.”*

- 4.195 The EIAR submitted with the application includes a detailed assessment of Archaeological, Architectural and Cultural Heritage impact, which included analysis of extensive archaeological investigations undertaken on site and across the wider landholding in 2019, including geophysical survey and test trenching. As confirmed in Chapter 12 of the EIAR, *“previous archaeological investigations on site did not identify any significant archaeological features. Therefore, the effect is **neutral and imperceptible.**”*

- 4.196 Thus, consideration of archaeology has been integrated into the earliest stage of the development process, and a neutral and imperceptible impact is predicted during construction, with no impact predicted during the operational phase of the development. Therefore, the proposals also clearly comply with Objective HCA07 of the operative Development Plan.

- 4.197 Objective CH06 of the previous Plan relates to the need for archaeological impact assessment for larger proposals. Objective HCA08 of the current Plan contains the same wording which is as follows:

*“Require that proposals for linear development over one kilometre in length; proposals for development involving ground clearance of more than half a hectare; or developments in proximity to areas with a density of known archaeological monuments and history of discovery; to include an Archaeological Impact Assessment and refer such applications to the relevant Prescribed Bodies.”*

- 4.198 In accordance with this objective, the application included a detailed archaeological impact assessment within Chapter 12 of the submitted EIAR. The assessment reflects the results of investigations and testing undertaken under licence from the National Monuments Service.
- 4.199 Having regard to the foregoing, it is clear that the appellant's claim that the development contravenes the above mentioned objectives (or their equivalent in the correct, operative Development Plan) is clearly incorrect. It would appear that the objectives referenced were not interrogated by the appellant, and were referred to in the appeal without any regard to the actual content of the planning application.

### **Carbon Emissions During Construction**

- 4.200 The John Conway and Louth Environmental Group appeal concurred with, and appended a copy of, the submission made by Colin Doyle on the Further Information response to Fingal County Council. The previous submission by Colin Doyle argued that the Carbon Assessment report prepared by HJL Architects and submitted as part of the Further Information response assessed items A4 and A5 of the assessment methodology only (relating to Transport and Construction), but that it ought to have assessed items A1 to A3 (relating to raw materials). On this basis, it is contended that the assessment underestimated the carbon associated with the development.
- 4.201 The submission further states the following:
- “Based on the quantities of concrete and steel listed in the report, and using typical factors for associated emissions, I calculate emissions of over 27,000 tonnes, which would be 664kgCO/m<sup>2</sup>, when added to the approx. 100/m<sup>2</sup> for A4 and A5 gives a total of 764 kg/m<sup>2</sup>. This is more than seven times the estimate by Henry J Lyons.”*
- 4.202 The accompanying AWN response (at Response Item A7) sets out that a comprehensive qualitative assessment of the climate impact at construction stage was provided in the submitted EIAR and the Further Information response to Fingal County Council, along with a quantitative assessment of stages A4 and A5 submitted with the Further Information response (as specifically requested by the Planning Authority).
- 4.203 It is noted that the Planning Authority confirmed their requirement for an assessment of items A4 and A5 at Further Information stage. However, in response to the foregoing claim in relation to the concrete and steel utilised within the development, this appeal response is now accompanied by an updated Carbon Assessment report prepared by HJL Architects which includes items A1 to A3. Please refer to Appendix 4 for the report. In fact, based on the measures taken to use low carbon construction materials, the carbon impact will be significantly less than the estimates put forward by the appellant of 'over 27,000 tonnes'.
- 4.204 The results from this additional quantitative assessment are analysed in the accompanying AWN response document, and it is set out that the construction phase impact of the Proposed Development is insignificant in the context of Ireland's GHG emissions over the period 2023-2027.
- 4.205 Please refer to the accompanying report in Appendix 4, and Response Item A7 of the AWN response document (Appendix 3 to this appeal response) for further details.

### Impact of On Site Generators and Operating Hours of Generators

- 4.206 The appellants, primarily the Friends of the Earth appeal raises several grounds of appeal with respect to the backup generators proposed on site. The following arguments are raised in this regard:
- I. The appeal states that, with regard to the claim in the FI response to Fingal County Council that there is no code or regulatory requirement regarding run time for generators for data centres, it is noted that the CRU are currently examining this issue, and the Board are urged to avoid pre-empting the CRU decision on this matter.
  - II. It is argued that insufficient information has been provided to guarantee that the generators are for emergency use only. The appellants argue that EirGrid may require data centres to use on site generation during periods of grid constraint, and this could result in significantly higher usage levels than 72 hours. The appellant also argues that no information is provided to support the applicants claim that they expect to run the generators for less than 18 hours per year. The appeal contends that there is no guarantee that the IED licence for the wider site will be amended, to restrict the operation of generators to 72 hours or for monitoring of run hours.
  - III. The appellant argues that the application is not clear whether the 72 hours operation quoted for the generators relates to all generators across the wider site, or if it relates to different generator units running at different times, amounting to 72 hours in total.
  - IV. The appellants argues that the assessment of impact from the diesel generators on site and permitted (in particular in respect of NO<sub>2</sub>) is insufficient. The appellants argue that the mitigation to ensure air quality standards are met has not been set out with sufficient clarity.

Each of the above are dealt with in turn below (and the following sections reflect input from AWS):

- I. **The appeal states that, with regard to the claim in the FI response to Fingal County Council that there is no code or regulatory requirement regarding run time for generators for data centres, it is noted that the CRU are currently examining this issue, and the Board are urged to avoid pre-empting the CRU decision on this matter.**

4.207 With regard to the first argument above that any decision should be deferred until following a decision by the Commission for Regulation of Utilities (CRU), it is firstly noted that the absence of policy is not a valid consideration and the Board must determine an appeal based on the extant policy context. Furthermore, in any event CRU/202357 has no relevance to the Proposed Development and therefore would not impact on the Board's consideration of the Proposed Development.

4.208 Referring to the Commission for Regulation of Utilities (CRU) 'Review of Large Energy Users Connection Policy Call for Evidence Paper' (CRU/202357), the appellants state that they "*strongly oppose any granting of planning permission which pre-empts the CRU's decision and/or actively undermines a future CRU direction on the subject*". It is respectfully submitted that the Board is obliged to consider an application for planning permission in the context of existing law, policy and guidelines, and not proposals for potential changes of policy. In the case *Element Power Ireland Ltd v An Bord Pleanála* [2017], the Board took a lack of policy into account in refusing permission and that approach was found by the High Court to be invalid. The Court held that the Board was obliged to consider an application for planning permission in the context of existing law, policy and guidelines, and not proposals for potential change. At paragraph 49, the Court noted that:

*"The Board must operate within the four corners of the statutory framework established under European law and the relevant domestic legislation, particularly*

*the 2000 Act and planning regulations, existing statutory guidelines, and local policy as set out in existing county development plans. The court may look at what might be said to be required or excluded, by implication, by virtue of the subject of matter, scope and purpose of this framework. The Board cannot take decisions based on considerations that fall outside this framework, or based on documents that are preliminary, scoping, proposed, consultative, or otherwise lack the status of statutory guidelines that the Board is obliged to consider.”*

- 4.209 Additionally, at paragraph 51, the Court stated “*nothing...in s.143 [of the Planning and Development Act 2000], authorises the Board to take into account drafts, or the prospect of new or modified government or local authority policy or objectives. I do not discern any provision in the 2000 Act which would entitle the Board to base a decision to refuse permission on the absence of national or local strategy or policy.”*

Notwithstanding the above, CRU/202357 has no relevance to the Proposed Development. As set out in the original Planning Report (Section 1.14) “*In 2017, AWS entered into a connection agreement with the Transmission System Operator (TSO), EirGrid for the provision of power to the subject site. A revision to the connection agreement signed in 2019 provides for 8 incremental ramps (increases) in power supply to the site, commencing in 2022 and completing in 2029 – with an incremental ramp occurring on 1 January of each year.”*

- 4.210 In other words, a connection agreement has been in place for the Proposed Development since 2017. The CRU’s call for evidence (CRU/202357) is to facilitate a “*review of the connection policy for **New Demand Connections**” (emphasis added) and as such does not apply to the Proposed Development.*

- II. It is argued that insufficient information has been provided to guarantee that the generators are for emergency use only. The appellants argue that EirGrid may require data centres to use on site generation during periods of grid constraint, and this could result in significantly higher usage levels than 72 hours. The appellant also argues that no information is provided to support the applicants claim that they expect to run the generators for less than 18 hours per year. The appeal contends that there is no guarantee that the IED licence for the wider site will be amended, to restrict the operation of generators to 72 hours or for monitoring of run hours.**

**Basis for Assumption of Generator Use:**

- 4.211 The following section summarises the more detailed response to this part of the foregoing appeal ground provided within the AWN response document (Appendix 3), as set out within Response Item A8 of that document.

- 4.212 As set out in the AWN Consulting Further Information Response 1(c):

*“the back-up emergency generators for the proposed development are to safeguard the continued provision of key online services which companies and individuals in Ireland access and rely on daily. In the event of a loss of power supply (e.g. temporary grid blackout) the emergency back-up generators will be utilised to maintain power supply. These generators are designed to activate and provide power to the data centre pending restoration of mains power. To ensure the emergency generators are ready in the event of grid power failure, the generators are tested periodically at a frequency set out in the submitted EIAR in Section 9.2.3.1.”*

- 4.213 The AWN response sets out (in summary) the following response to the above ground of appeal:

- As with all other mission critical facilities (e.g. airports, hospitals, centers for fire, police and public administration services), backup generators are designed to operate in response to power losses due to unplanned events and planned events.
- An unplanned event relates to unusual or unforeseeable events such as grid outages, failure etc., and events within AWS' control such as maintenance and repair works. Planned events comprise planned maintenance and repair works and equipment replacement, along with routine testing of generators.
- As set out in the Further Information response, 72 hours operation of generators yearly is an internal design standard set by AWS, unless local code, utility or regulators require, or where there is other localised data recommending a higher or lower number of hours. 72 hours represents a conservative worst case scenario.
- The AWN response summarises the measures being taken to address security of supply concerns, and notes that in periods of grid pressure, large energy users such as AWS can be required to utilize onsite back-up generators to ensure the grid remains stable and functioning. Such events have been factored into the assumption of generator use utilised in the EIAR.
- While the existence of a short term security supply issue, it is reiterated that the 72 hours backup generator availability modelled is a conservative worst case scenario given historic occurrence of events and an assessment of future risks.
- The assessment undertaken in the Addendum to Chapter 9 of the EIAR submitted with the Further Information response to Fingal County Council was based on a reasonable worst case assessment, reflecting the extensive experience of AWS in operating data centres across a range of geographic regions, including in Ireland.

4.214 On this basis, the AWN response document confirms that, contrary to the claims made by the appellants, the climate assessment within the EIAR and the EIAR Addendum submitted with the Further Information response was not based on overly optimistic assumptions, but in fact represented a conservative approach to modelling and assessing the likely backup generator operating scenarios.

### **IED**

4.215 The AWN response document sets out the following points.

4.216 The appellants claim that EU<sup>19</sup> (IED Directive) and UK<sup>20</sup> guidance should be referenced which the “applicant discounts”. Respectfully, this is wholly inaccurate. As set out in the EIAR, Further Information Response and this Appeal Response, under Section 9.2.3.1 of the EIAR the air modelling is outlined which confirms that the assessment has been undertaken in line with the appropriate guidance from the EPA (Air Dispersion Modelling from Industrial Installations Guidance Note (AG4)” (EPA, 2020)) and using the appropriate air dispersion model (USEPA approved AERMOD model). In addition, as expanded on further at Section 4.13-4.14 below an EPA-Industrial Emissions Directive (IE) licence will be applied for to facilitate the operation of the proposed development. Finally, the generators (Cummins G5) modelled in the EIAR for the Proposed Development are certified as compliant with the 2g TA LUFT (Technische Anleitung zur Reinhaltung der Luft) emissions standards (~2,000 mg/m<sup>3</sup> of NO<sub>x</sub> at 5% oxygen and reference condition). Germany's TA LUFT standard is commonly referenced across Europe, including the UK

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<sup>19</sup> [https://environment.ec.europa.eu/topics/industrial-emissions-and-safety/industrial-emissions-directive\\_en](https://environment.ec.europa.eu/topics/industrial-emissions-and-safety/industrial-emissions-directive_en)

<sup>20</sup> <https://www.gov.uk/guidance/industrial-emissions-standards-and-best-available-techniques>

Environment Agency's 'Data Centre FAQ Headline Approach' to the permitting and regulatory aspects for Data Centre within the context of the Industrial Emissions Directive (IED). This EA guidance document considers 2g-compliant generator units to be BAT or Best Available Technology for back-up power generation units.

4.217 Since the submission of this planning application, an IED license has been approved and now governs the permissible operation of back-up generators at the permitted developments, Buildings A, B and C, within the wider landholding of the Proposed Development Site. Specifically, regarding the operation of generators outside of standard generator testing/maintenance, Condition A.1.1 of the IED License (EPA Ref: P1182-01) states *“Generators shall not be operated for more than 72 hours annually. Generators shall not be operated at more than 90% load”*.

4.218 With regard to the appellant's claim that there is no guarantee that IED licence will be amended to include the current development proposal it is noted that the applicant is committed to applying for an amendment to the existing licence to include the proposed development. The public notices for the application stated the following statutory wording:

*“An EPA-Industrial Emissions Directive (IE) licence will be applied for to facilitate the operation of the proposed development.”*

4.219 Furthermore, in order to provide an additional degree of certainty, the applicant would be willing to accept a condition attached to any grant of permission by the Board to state the following:

*“Prior to the **operation** of the development, the Industrial Emissions Licence for the wider landholding shall be amended to include this development”*

4.220 As set out in Chapter 1.0 of the EIAR, the Proposed Development will require an EPA Greenhouse Gas (GHG) Emissions permit in accordance with the EPA Act 1992, as amended. A GHG Permit is in place for the backup generators at Building A (Permit Register Number: IE-GHG197-10524-1). This permit has been amended to include additional back-up generators at Buildings B and C. Subject to grant of planning permission for the Proposed Development, it is intended that the permit will also be amended to include the additional back-up generators from the Proposed Development (Refer to Chapter 9 Air Quality and Climate). A GHG Permit requires annual reporting to address the appellants concern on monitoring of use.

**III. The appellant argues that the application is not clear whether the 72 hours operation quoted for the generators relates to all generators across the wider site, or if it relates to different generator units running at different times, amounting to 72 hours in total.**

4.221 With regard to the appellant's claim that there was a lack of clarity as to whether the 72 hours modelled related to all generators on the wider landholding, or to staggered operation totalling 72 hours, the accompanying response document prepared by AWN Consulting notes the following:

4.222 The worst-case scenario for the operation of the backup generators is as outlined in Section 3.0 Item 1 (B) of the Further Information response. In addition, the weekly testing of the generators and the maintenance testing, four times per year, of all generators has been assessed in Chapter 9 of the EIAR.

4.223 Thus, as outlined, the assessment is based on the operation of the project's backup generators for the Proposed and Permitted Development for 72 hours each per year as well as scheduled weekly testing and quarterly maintenance testing of all back-

up generators from the permitted Buildings A, B and C and proposed Buildings E, F and G.

- 4.224 Thus, the modelling provided for the backup generators running simultaneously (across the entire campus, including the proposed development and a potential future phase of development) for 72 hours annually, which is considered to represent a reasonable worst case on the basis of the type of event which would precipitate such an occurrence.

**IV. The appellants argues that the assessment of impact from the diesel generators on site and permitted (in particular in respect of NO<sub>2</sub>) is insufficient. The appellants argue that the mitigation to ensure air quality standards are met has not been set out with sufficient clarity.**

- 4.225 With regard to the argument in the Friends of the Earth appeal that potential impacts on human health arising from the operation of generators on site had not been undertaken, the accompanying AWN response document sets out clearly that this argument is without any basis. The AWN response document states the following:

*“Chapter 9 of the EIAR outlines in comprehensive detail the assessment of air quality from the Proposed Development. Under Section 9.2.3.1 of the EIAR the air modelling is outlined which confirms that the assessment has been undertaken in line with the appropriate guidance from the EPA (Air Dispersion Modelling from Industrial Installations Guidance Note (AG4)” (EPA, 2020)) and using the appropriate air dispersion model (USEPA approved AERMOD model).*

*The modelling results were discussed in detail in Section 9.7.2.1 for the Do Nothing and Proposed Development scenarios with the Cumulative scenario discussed in Section 9.8.2 of the EIAR.*

*In relation to the Proposed Scenario Section 9.7.2.1 stated that:*

*“The NO<sub>2</sub> modelling results at the maximum location at and beyond the site boundary are detailed in Table 9.9 based on the operation of 97 of the 107 no. back-up diesel generations for 72 hours per year using the USEPA methodology outlined within the guidance document titled ‘Additional Clarification Regarding Application of Appendix W Modelling Guidance for the 1-Hour National Ambient Air Quality Standard’ (USEPA, 2011) as well as considering scheduled weekly testing and quarterly load-banking of all back-up generators from the permitted Buildings A, B and C and proposed Buildings E, F and G in addition to a house generator in Buildings B, C, F and G. The Proposed Development Scenario also included emissions from eight existing emission points at the neighbouring BMS and Alexion facilities.*

*The results indicate that the ambient ground level concentrations are within the relevant air quality standards for NO<sub>2</sub>. For the maximum year modelled, emissions from the site lead to an ambient NO<sub>2</sub> concentration (including background) which is 62% of the maximum ambient 1-hour limit value (measured as a 99.8<sup>th</sup> percentile) and 82% of the annual limit value at the maximum off-site receptor.”*

*In Section 9.7.2.2 the air quality impact assessment concluded that:*

*“The modelling assessment has found that ambient NO<sub>2</sub> concentrations as a result of the Do Nothing Scenario, the Proposed Development Scenario and the Cumulative Impact Scenario (see Section 9.8.2) are in compliance with the relevant ambient air quality limit values at all locations at or beyond the site boundary. The impacts to air quality from operation of the Proposed Development are therefore deemed **long-term** and **slight** in terms of significance and **negative** in terms of quality.”*

*As noted on the previous page, the use of 72 hours for air emission modelling is highly conservative and proposed a worst-case event with a very low probability of occurring, given the stability of the Irish transmission grid.”*

- 4.226 In fact, as summarised within the accompanying AWN response, the EIAR included a comprehensive assessment of air quality in accordance with the relevant EPA guidance. The detailed modelling, which adopted a precautionary approach, predicted that the impact was predicted to be long term, slight, and negative. Thus no significant impacts were predicted based on the robust modelling undertaken. We refer to the AWN document for further details.

### **Use of Renewable Diesel**

- 4.227 The Friends of the Earth appeal argues (at pages 8 and 9 of the appeal) that the use of Hydrated Vegetable Oil (HVO) for the backup generators on site is considered to be insignificant in terms of mitigation, while the Friends of the Earth appeal contends that the use of renewable diesel may not in fact represent a renewable fuel source, and notes that it was only committed to subject to availability. The appeal goes on to claim that environmental costs due to landuse change for renewable diesel are high, while also raising concerns regarding traceability control, and the potential for use of raw palm oil or soy oil in such fuels, the production of which is damaging to the environment. The appellants also claim that HVO is not a carbon neutral fuel, and that it will not be treated as a green fuel to meet the EU’s 2030 renewable targets, subject to some exceptions.
- 4.228 As set out in the at Section 7.43 of the submitted Planning Report, the air quality and climate assessment of the backup generators within the EIAR was based on the use of fossil fuel (diesel) as a worst-case, it did not consider the lower emissions associated the use of HVO.
- 4.229 The following sections have been prepared by AWS.
- 4.230 At set out at Section 7.44 of the submitted Planning Report, renewable diesel has significantly lower emissions following the Greenhouse Gas Protocol<sup>21</sup> (GHG Protocol). The GHG Protocol is an internationally recognised body who have recognised global frameworks to measure and manage greenhouse gas (GHG) emissions from private and public sector operations.
- 4.231 In March 2023, AWS signed a supply agreement<sup>22</sup> with Certa to provide renewable HVO to their Dublin operations including the Proposed Development. AWS’s supply agreement with Certa means that the backup generators for the Proposed Development will be supplied with HVO from the date of commissioning along with any subsequent refills due to backup generator use. Given the volumes of HVO available under their supply agreement, it is highly unlikely that AWS would need to

<sup>21</sup> <https://ghgprotocol.org/corporate-standard>

<sup>22</sup> <https://www.aboutamazon.eu/news/sustainability/harnessing-the-power-of-plants-to-decarbonise-our-data-centres>

utilise diesel for the Proposed Development. In fact, all refills of AWS's existing backup generators in Dublin have been with HVO since October 2022.

- 4.232 AWS recognise there are legitimate concerns with some mixes of renewable diesel, that's why AWS is helping to develop a global supply chain, working with local organisations like Certa in Ireland, and is investing in the procurement of HVO that only comes from renewable sources, with raw materials that are traceable to their origins and not derived from sources that would impact highly biodiverse areas.
- 4.233 AWS's purchase of HVO excludes the use of Palm or Soy Oil, AWS have confirmed that Certa's material safety data sheet excludes such materials. The Certa supplied HVO is sold under the HD+HVO label and a comprehensive document setting out its properties is available online<sup>23</sup>. All shipments are receipted against that standard. The Certa supplied HVO is sold under the HD+HVO label.
- 4.234 As set out in the accompanying Awn response, the European Environment Agency (EEA) has studied the environmental impact of HVO and has found that HVO has the advantage of lifecycle GHG emission reductions of greater than 75%<sup>24</sup> compared to fossil-fuel derived diesel and as such the use of this fuel will contribute to Ireland achieving net zero GHG emissions by 2050 in line with Irish and EU targets.
- 4.235 The Awn response also details that the use of HVO to replace conventional diesel will lead to substantially lower GHG and SO<sup>2</sup> emissions and lower NO<sub>x</sub> and PM emissions.
- 4.236 On the basis of the foregoing, while the air quality assessment undertaken did not in fact rely on the use of HVO, the use of renewable HVO will result in significantly reduced GHG and SO<sub>2</sub> emissions and lower NO<sub>x</sub> and PM emissions. The appellant's bare assertions that the HVO used on site would represent an environmentally damaging fuel source are incorrect, and the grounds of appeal relating to the use of HVO are without any merit.
- 4.237 We refer to the Awn response document (Response Item A9) for further details.

### **Other Miscellaneous Points**

- 4.238 This section of the document responds to several other miscellaneous grounds of appeal. A response to each of these is provided under the subheadings below.

#### Condition on Development Above Roof Level

- 4.239 The Friends of the Earth appeal (at page 4 of the appeal) refers to Condition 19 of the Fingal County Council decision to grant permission for the Proposed Development, which states the following:

*"No additional development shall take place above roof parapet level, including air handling equipment, storage tanks, ducts or other external plant, telecommunication aerials, antennas or equipment, unless authorised by a further grant of planning permission."*

- 4.240 The appeal makes the case that this condition may have the "perverse effect" of restricting the addition of further solar PV to the roofs of the proposed buildings.

<sup>23</sup> <https://certaireland.ie/wp-content/uploads/2023/08/Certa-GD-HVO-Ebook-2023.pdf>

<sup>24</sup> ETC CM Report 2022/02 – Greenhouse gas intensities of transport fuels in the EU in 2020, Monitoring under the Fuel Quality Directive

- 4.241 In this regard it should be noted that in fact the proposed buildings each include the maximum possible coverage with rooftop solar PV panels. The applicant sought the maximisation of PV panels during the design phase of the project, with panels introduced on the roof areas which are not required to be kept clear due to air outlets or plant requirements.
- 4.242 Therefore, while the Board may (or may not) consider a condition similar to condition 19 of the Planning Authority's decision appropriate, the inclusion of a similar condition would not result in any unintended curtailing of solar panel provision on the proposed buildings.

#### Relevance of the Amazon Climate Pledge

- 4.243 The Friends of the Earth appeal (at page 6 of the appeal) states that the references to the climate commitments of the applicant's group within the application and Further Information response are not relevant considerations, as a breakdown has not been provided to establish the figures in the company's publications as they relate to Ireland.
- 4.244 The appeal by Colin Doyle and the appellant's previous submission following the Further Information response (page 2 of the submission) also argue that *"There are repetitive references in the Further Information to the commitment of the applicant's parent company to powering its worldwide operations from renewable energy. This is not relevant in the Irish planning context and just serves to confuse and evade provision of specific relevant information sought by Fingal County Council in the Irish context."*
- 4.245 In response to this ground of appeal, it should be noted that while the applicant has provided details of the strong commitments made by its parent company, these have not been relied on specifically in respect of the project itself, they are nonetheless clearly of relevance given the global nature of the climate challenge.
- 4.246 The Climate Pledge demonstrate the company's global strategy, as set out in the Further Information Response. *"Sustainability and environmental commitments, made as part of the Climate Pledge are made by the whole Amazon business, of which AWS is a part."*
- 4.247 The actions and commitments of Amazon.com, Inc group (of which AWS/ADSIL is a part) demonstrate a strong track record of delivering on objectives to power their operations using renewable energy and pursue a swift decarbonisation of their global operations.

#### EU Directives

- The Friends of the Earth appeal (at page 8 of the appeal) refers to the EU Energy Efficiency Directive, and the EU Corporate Sustainability Due Diligence and Reporting Directives, which it is claimed the application should have addressed.
- 4.248 Firstly, it is noted that the application has in fact addressed the Energy Efficiency Directive (which the appellant appears to have overlooked). In this regard, we refer to the response prepared by the applicant under Further Information item 3(c), contained within the JSA Further Information response cover letter. The response stated:

*"The Irish operations of AWS are compliant with Article 8 of the EU Energy Efficiency Directive (EED) which requires large enterprises to be subject to energy audits. In anticipation of future requirements, AWS is currently implementing an ISO 50001 certified Energy Management System for continual energy efficiency improvements in the AWS's Irish operations."*

- 4.249 The submitted Energy Statement set out the range of measures to enhance energy efficiency within the proposed development.
- 4.250 With regard to the Corporate Sustainability Reporting Directive (CSRD), it is noted that this Directive has not yet been transposed into Irish law and does not currently impose obligations on any company (including the applicant). Similarly, the proposal for a Corporate Sustainability Reporting Directive (CSDDD) is currently under consideration by the EU legislators and as it is not yet in force it does not impose obligations on any company (including the applicant). Neither CSRD nor the proposed CSDDD have any bearing on the current application.

#### Potential Future Phase of Development

- 4.251 The Mannix Coyne appeal (at page 5 of the appeal) states the following:

*“When an application for planning permission for further phases of a masterplan is made, a full EIA is required which in turn will both assess cumulative impacts with all existing or approved developments and potential environmental impacts of future phases of a masterplan as to avoid a situation where project splitting of the application arises.”*

- 4.252 The foregoing ground of appeal demonstrates the absence of any detailed review of the planning application documentation by the appellant. The EIAR submitted with the application (and the additional environmental inputs submitted in response to the Further Information request) in fact addresses the predicted impact of a further potential future data centre building on the wider landholding within the relevant sections dealing with cumulative impact. The potential future phase of development is addressed in as far as practicably possible, which is the requisite standard established by *Fitzpatrick v An Bord Pleanála*<sup>25</sup> in respect of a directly equivalent argument relating to potential future phases of data centre development on a wider landholding at Athenry in Co. Galway.
- 4.253 For further details in relation to the cumulative assessment of the potential future data centre building on the wider landholding, we refer the Board to the following sections of the EIAR and Further Information Response:
- Section 2.2.5 of the EIAR;
  - Chapter 16 of the EIAR, which comprises an assessment of predicted cumulative impacts, including the impact of a potential future additional data centre building on the northernmost portion of the landholding;
  - Section 9.8 of the EIAR, which addresses the Air Quality and Climate cumulative impacts, including for the potential future data centre building;
  - Section 5.0 of the AWN Further Information response document submitted to Fingal County Council, which included a cumulative assessment of the climate impact of the ‘overall project’, which includes the potential future data centre building.
- 4.254 Thus, contrary to the assertions within the Mannix Coyne appeal, the application clearly and robustly deals with and addresses the potential future phase of development. For further details in this regard we refer to the above referenced AWN Consulting documentation and the accompanying AWN Consulting appeal response document on climate.

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<sup>25</sup> [2019] IESC 23

### Guarantees of Origin

- 4.255 The appeal submitted by Colin Doyle (page 8 of the appeal) contends that the applicant's commitment to the purchase of energy with Guarantees of Origin (GOs) in respect of previous phases of development. The submission by Doyle on the Further Information submitted to Fingal County Council also states that "GOs are simply a market support mechanism to enable customers to express a preference for renewable supplies, and do not imply any measures of GHG offset for the purchaser. For the existing development (FW17A/0025/ABP PL06F.248544 and FW19A0087), the only mitigation measures volunteered and required were in the form of Guarantees of Origin (GOs). As explained above these GOs do not represent a GHG offset which could validly be claimed by the purchaser."
- 4.256 Firstly, it should be noted that the application under consideration is not for the already permitted phases of development, but rather for the three buildings now proposed. Therefore the reference to Guarantees of Origin in respect of previous applications is a moot point. These applications were made and decided on long before the publication of the current Government Statement on Data Centres and the references to CPPAs contained therein.
- 4.257 The Government Statement, published 27-Jul-2022, is a forward-looking document. The document establishes the six principles as a "set of national principles that should inform and guide decisions **on future** data centre development" (emphasis added). Under planning legislation it is the current government policy that must be considered and that was considered for prior planning permissions for the Applicant's existing operations, the Government Statement does not apply retrospectively to developments which were permitted and made operational before its publication. Its provisions are instead applicable to post 27-Jul-2022 data centre projects, such as the Proposed Development.
- 4.258 The main mitigation proposed in relation to energy use and climate is the engaging in a CPPA in respect of the Proposed Development, which will provide for additionality as set out in detail within this appeal response.

## **5.0 CONCLUSION**

- 5.1. This response to third party appeals is submitted on behalf of the applicant, Universal Developers LLC, in relation to the decision of the Planning Authority, Fingal County Council, to grant permission for the Proposed Development comprising an additional phase of data centre development within an established data centre campus at Cruiserath Road, Dublin 15.
- 5.2. The Proposed Development is subject to an existing connection agreement with EirGrid in respect of the full power requirements for the development, while the site itself is served by existing high voltage transmission infrastructure developed by the applicant in consultation with EirGrid. Additionally, the application has demonstrated the compliance of the proposal with national, regional, and local planning policy, and with relevant Government policy including the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy 2022.
- 5.3. We trust the Board will afford the responses set out herein due consideration in determining these appeals. Should you have any queries or require any further information please do not hesitate to contact the undersigned.

Yours faithfully,

A handwritten signature in black ink that reads "John Spain". The signature is written in a cursive, slightly slanted style.

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**John Spain Associates**  
**39 Fitzwilliam Place**  
**Dublin 2**  
**D02 ND61**

**APPENDIX 1 – COPY OF CORRESPONDENCE FROM AN BORD PLEANÁLA  
ENCLOSING THE APPEALS**

**APPENDIX 2 – COPY OF THE DECISION OF FINGAL COUNTY COUNCIL TO GRANT PERMISSION FOR THE PROPOSED DEVELOPMENT**

**APPENDIX 3 – AWN ENVIRONMENTAL RESPONSE**

**APPENDIX 4 - RESPONSE ON CONSTRUCTION CARBON ASSESSMENT PREPARED  
BY HENRY J LYONS ARCHITECTS**

## **APPENDIX 5 – AWS IMPACT IN IRELAND REPORT**