An Bord Pleanála

Inspector's Report ABP-309773-21 .

Development	Demolish a dwelling house, outbuildings and stable, provide 2 no. 110kV transmission lines and a 110kV gas insulated switchgear (GIS) substation compound and transformer/MV switch room compound and associated site works.
Location	Lands at Peamount Road in Milltown and Clutterland, Co. Dublin
Planning Authority	South Dublin County Council
Applicant	Data and Power Hub Services Ltd.
Type of Application	Application under provisions of Section 182A of the Planning and Development Act, 2000 (as amended)
Observers	1. South Dublin County Council 2. HSE South Dublin 3. Transport Infrastructure Ireland 4. Geological Survey Ireland 5. Department of Defence 6. Department of Housing, Local Government and Heritage.

Date of Site Inspection	29 July 2021
Inspector	Mairead Kenny

Contents

1.0 Introduction 6

2.0 Site Location and Description 6

3.0 Proposed Development 7

4.0 Planning History 9

4.1. On overall 8ha site north of Peamount Road 9

4.2. Other recent cases 13

5.0 Policy Context 13

5.1. National Planning Framework 13

5.2. National Development Plan 2018 – 2027. 14

5.3. Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy, June 2018 14

5.4. Ireland's Grid Development Strategy, Your Grid, Your Tomorrow, 2017 14

5.5. Regional Spatial & Economic Strategy for the Eastern & Midland Region 14

5.6. South Dublin County Council Development Plan, 2016-2022 15

5.7. Natural Heritage Designations 16

6.0 Submissions 16

6.1. Planning Authority 16

6.2. Prescribed Bodies 21

7.0 Planning Assessment 23

7.1. Principle and policy issues 23

7.2. Residential Amenity 24

7.3. Material assets 25

7.4. Water Services and Flood Risk 27

7.5. Other matters 29

7.6. Conclusion 31
8.0 Environmental Impact Assessment 31
8.1. Introduction 31
8.2. Compliance with Legislation 31
8.3. Alternatives 32
8.4. Public participation. 34
8.5. Population and Human Health 34
8.6. Biodiversity 37
8.7. Land, soils, geology and hydrogeology 42
8.8. Hydrology 46
8.10. Air and Climate 49
8.11. Noise and vibration 51
8.12. Archaeology, Architectural and Cultural Heritage 55
8.13. Landscape and Visual 57
8.14. Traffic and transportation 59
8.15. Material Assets 62
8.16. Interactions and Cumulative Impacts 66
8.17. Major accidents and disasters. 67
8.18. Reasoned Conclusion 67
9.0 Appropriate Assessment 68
9.1. Introduction, legal context and proposed development 68
9.2. Description of the proposed development 69
9.4. Appropriate Assessment- Screening 70
9.5. Identification of Likely Effects 73
10.0 Recommendation 76

11.0 Reasons and Considerations 76

12.0 Conditions 80

1.0 Introduction

1.1. This is an application under the provisions of Section 182A of the Planning and Development Act, 2000 to provide for a proposed 110kV gas insulated switchgear (GIS) substation, other electricity infrastructure and associated works. The substation is to be known as Peamount substation. The proposed development includes a 940 m transmission line to connect the proposed substation to the existing Castlebaggot-Kilmahud circuit to the east. Extensive landscaping is also proposed in the form of earth mounding and planting.

1.2. The site of the proposed substation, roads, landscaping and surface water attenuation is in the centre and at the southern end of a larger site, which I refer to as the overall site. Two other major facilities have been permitted at the overall site. To the north-west is the permitted Power Generation Facility (PGF) and to the north-west is the permitted Information Communication Technology (ICT) facility. Any reference herein to the proposed development site (PDS) means the application site comprising the part of overall site and an elongated section of lands which will accommodate the transmission cable. I describe the part of the PDS which lies within the overall site as the main site. I refer to the site of the transmission cable as the cable site.

1.3. The development is to enable the export of power from the Power Generation Facility to the National Grid and also to provide a permanent power supply for the ICT facility.

2.0 Site Location and Description

2.1. The site is in the townlands of Milltown and Clutterland. The site is located about 6km west of the M50 and in general terms is to the north-east of the former Peamount hospital and to the west of Grange Castle South Business Park. Grange Castle South Business Park hosts a number of high-profile international businesses including Pfizer, Microsoft Ireland Data Centres and Microsoft Grange Castle, Grifols Worldwide Operations Ltd., Takeda Ireland Ltd., Edgeconnex Data Centre and Interxion Ireland Data Centre and others. The site and the lands in the immediate vicinity comprise part of a designated extension of the existing major business parks, which is to be known as Grange Castle West. To the west of the proposed

development site is a commercial haulage operation and further west again there is a golf course. The topography is fairly flat.

2.2. The proposed development site is of stated area of 4.6 ha and comprises two parts. Firstly, to the north of Peamount Road (R120) is the main site, which is largely in agricultural uses and at the southern end there are houses (Bulmer and Little Acre) and associated agricultural buildings and gardens. The second part is the cable site, a linear route which will house the grid cables.

2.3. The main site is positioned to the centre and at the southern end of the overall 8 ha site. In terms of the overall site, which is to the north of Peamount Road the main site lies between the permitted Power Generation Facility to the north east and the permitted ICT facility. This is the location of the proposed substation and transformer /MV control building compounds as well as landscaping, parking, roads and also includes part of the permitted ICT facility. Within the main site are two houses, Bulmer and Little Acre, both of which have associated outbuildings, mature trees and shrubs.

2.4. The second part of the site, the cable site is the linear route which will accommodate most of the transmission cable, excluding that part which is within the main site and specifically along the route of the permitted access road servicing the PGF. This consists of part of the regional roads, brownfield lands including part of the former Nangor Road and greenfield lands and lands adjacent the recently upgraded Baldonnel road. It takes a north-easterly course along Peamount Road before departing from the main road and traversing eastwards along the former Nangor Road passing to the north of a commercial garage and then passing under the Griffeen river and scrub woodland and under the Baldonnel Road to terminate at lands east of Baldonnel Road and adjacent a recently constructed data centre.

3.0 **Proposed Development**

3.1. Permission is sought for a new 110 kV Gas Insulated Switchgear (GIS) Substation to be known as Peamount Substation, 3 no. transformer bays, a Client Control Building, associated compounds and site infrastructure, 2no. underground single circuit 110kV transmission lines from the proposed substation to connect to the existing

Castlebaggot / Kilmahud circuit which is 940m to the east and for ancillary and associated works.

3.2. The proposed 110 KV GIS substation will comprise a two-storey GIS substation building of gross floor area of 1430 m², car parking, lighting, associated services and roads. The substation and parking will be situated within a fenced compound.

3.3. The Transformer/MV switch room includes 3 no. transformers plus MV control room, lighting and lightening masts, car parking, associated services and roads, within a fenced compound.

3.4. The 110kV transmission line follows part of the permitted internal access road of the PGF before passing under the R120 for 300m to the north-east to the junction with the former Nangor Road / R134 before diverting across lands owned by South Dublin County Council (SDCC) and passing under the Griffeen river and under the Baldonnel road to connect with the Castlebaggot-Kilmahud circuit. The overall length of the 110 KV cable route is 940 m and there will be two joint bays one at the connection to the Castlebaggot-Kilmahud circuit and another along the route.

3.5. The development will include:

- Demolition of the dwelling house known as Bulmer and of the associated outbuildings and stable –the house known as Little Acre and associated buildings is to be demolished as previously permitted. (Note - In the interim since making this application permission has been granted separately for demolition of Bulmer and associated outbuildings and for removal of trees and scrub woodland).
- The crossing of the Griffeen river will be by way of horizontal directional drilling for a length of 150m of the cable. This will be undertaken at a depth of approximately 9.65 m and will require four separate directional drillings that will be about 2.5 m apart.
- Changes to the attenuation pond and landscaping previously permitted as part of the PGF. The drainage network for the proposed development is designed to convey stormwater into these proposed 2 no. attenuation areas of capacity of 2903 m³ and 325 m³. The ponds are stated to have been sized to

accommodate all run-off from buildings and structures under this application and other phases of the development. They are sized to accommodate the predicted stormwater volumes during a 1 in 100-year storm event with 20% allowance for climate change. (Note - In the interim since the lodging of this application permission has been granted for similar works under the ICT facility.)

- Wastewater will be collected in a foul drain and discharged to the existing network by way of a new pipe network to be installed under Peamount Road and onwards to the existing sewer at a point some 550m away. Irish Water has provided a confirmation of feasibility in response to the pre-connection enquiry. Connections to be made to the development permitted – reg. ref. SD20 A/0058 for the PGF and reg. ref. SD 20A/0324 for the ICT facility are also considered in the application documentation.
- Water supply will be required at the GIS substation and will be provided by connection from an existing watermain in the public road outside the site. There will be, at most, 5 persons per day at the site. Irish Water has provided a confirmation of feasibility in response to the pre-connection enquiry.
- The design of lighting is stated to have taken into account the requirements for safety circulation routes and the long-term impacts on foraging, commuting and bat roosts.

4.0 Planning History

4.1. On overall 8ha site north of Peamount Road

4.1.1. Power Generation Facility

4.1.2. Reg. ref. SD20A/0058 relates to the permission granted by the planning authority for a Power Generation Facility at the northern end of the overall site. The elements of the permitted development are:

- demolition of the house ‘Little Acre’ and other buildings
- construction of a power generating facility within a compound of 14,240 m²

- to include a power plant building with up to 7 no. 25m high flues and housing 7 no. engines and the MV/LV switchgear
- an Above Ground Installation (AGI) gas connection, tanks and other structures
- a battery energy storage system compound of 1030 m²
- 14 no. car parking spaces and a footpath at site frontage.

4.1.3. ABP–308879–20 relates to an invalid appeal of the decision.

4.1.4. No substantive development has commenced at this site.

4.1.5. **Information Communication Technology Facility**

4.1.6. At the time of making the current application, the planning application for the ICT facility was under consideration by SDCC under reg. ref. SD20A/0324.

4.1.7. The significant elements of the proposed development are:

- Demolition of Bulmer and little Acer and associated buildings.
- Construction of a two-storey ICT facility each with three-storey plant levels and associated and ancillary development of gross floor area of 30,518 m² on an overall site of 8.2 ha.
- Ancillary site development works including attenuation ponds and foul and storm drainage network and utility ducts and cables.
- 80 car parking spaces, 17 sheltered bicycle parking spaces, a footpath and turning lane at Peamount Road.

4.1.8. Further information was requested on 11 February 2021 relating to:

- Justification for the siting of the development in terms of feasibility and adverse impact of servicing the site and the power plant with power.
- Response to a condition attached under reg. ref. SD20A/0058 regarding construction and operational noise requirements of Environmental Health.
- Measures to mitigate the visual impact of the proposed development including additional screening and ‘greening’ of all infrastructure on site including by

reducing the width of the road and strengthening the biodiversity rich link along the southern boundary.

- Submit Urban Design Rationale in the form of the design statement to include a Concept Plan and/or Masterplan.
- Details of fencing and signage.
- Daylight and sunlight and shadow analysis.
- Updated bat survey. It was noted in addition that a requirement may apply for a licence from NPWS if bats are still using the building.

4.1.9. I note that as part of the consideration of this application the internal reports on file refer to a number of issues which arose in the PGF application including with respect to tree and hedgerow protection, protection of residential amenity including with respect to noise, daylight and sunlight, provision of a right turning lane and footpath and ducting along the site frontage. It was also noted that under the PGF application details a site-specific CEMP was required and that a similar requirement should apply in this case. With respect to landscaping and having regard to the permission for the PGF certain requirements were set out relating to the protection of trees and provision of riparian planting and public amenity. Cultural heritage impacts were deemed to be acceptable subject to the mitigation set out in the EIAR relevant to the ICT application.

4.1.10. Following the submission of the further information the following comments are relevant in terms of the final assessment of the application by the planning authority leading to the decision to grant permission:

- Since requesting additional information the planning authority has provided comments on the SID application. Without the approval of that application the site would not be adequately serviced and it is therefore necessary to link the current proposal to the SID via condition.
- The submitted acoustic report addresses all the issues raised and is fully detailed and quantified outlining design mitigation measures to reduce noise and breaking down the noise generation of the operational phase of the ICT and PGF.

- The amendments incorporated to address concerns with respect to visual impact include revised earthworks modelling increasing berm heights by 2 m, large tree planting and revised architectural treatment, additional earthworks modelling including a new berm along the south-west façade and selection of trees to create a dense visual screen. The Parks Department considers that the proposed development provides for enhanced blue – green infrastructure and strengthened ecological connections. The changes in view 2 in particular are welcomed.
- The submitted design statement addressed the request and the impact of the proposal has been significantly reduced through redesign and additional landscaping.
- Details of fencing are discussed.
- No significant impacts arise with respect to daylight/sunlight analysis.
- There is no significant change with respect to bat roosts.

4.1.11. Permission was granted on 16 June 2021. 20 no. conditions were attached including:

- Condition 2 - where relevant the development shall comply with all conditions of previous permission SD 20A/0058 unless otherwise required by conditions.
- Condition 4 – car and bicycle parking, Mobility Management Plan, public lighting and footpath, communication ducts, Construction and Demolition and Waste Traffic Management Plan and Construction Traffic Management Plan to be agreed.
- Condition 7 – surface water and flood requirements.
- Condition 8 – crane operation.
- Condition 12 – all mitigation set out in the documentation including in the EIAR and the Bat Memo dated 7 May 2021 shall be implemented in full.
- Condition 13 – the proposed development shall only commence once the Strategic Infrastructure Development ABP - 309773 – 21 has been permitted unless otherwise agreed in writing by the planning authority.
- Condition 14 – requirements of EHO relating to hours of construction, construction and operational noise and other matters.

- Condition 16 – detailed requirements relating to tree protection.
- Condition 17 – requirements relating to the implementation of landscape plans.
- Conditions 18 and 19 – requirement to retain arboriculturalist and landscape architect.

4.2. Other recent cases

4.2.1. The Board has recently granted permission for Aungierstown Substation at a site to the east - ABP-309146-21.

4.2.2. There is a concurrent application under for Coolderrig Substation at a site to the north-east - ABP-309951-21.

5.0 Policy Context

5.1. National Planning Framework

5.1.1. The National Planning Framework sets out 10 National Strategic Outcomes (NSO) as priorities of the National Development Plan.

5.1.2. NSO 5 - A strong economy supported by enterprise, innovation and skills recognises 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. It is an objective to seek the promotion of Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities.

5.1.3. NSO 8 refers to transition to a low carbon and climate resistant society noting that new energy systems and transmission grids will be necessary for a more distributed, more renewables focused energy generation system. The diversification of energy production systems will require the progressive and strategic development of a different form of energy grid.

5.1.4. National Policy Objective 73C relates to the timely delivery of enabling infrastructure to deliver planned growth and development.

5.2. **National Development Plan 2018 – 2027.**

5.2.1. The National Development Plan identifies the transition to a low carbon and resilient society as a national strategic outcome. Measures include reinforcing the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres.

5.3. **Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy, June 2018**

5.3.1. As well as noting and supporting the role of datacentres in Ireland's digital economy, the statement notes that a large proportion of existing and planned data centres due to connect to the electricity system are expected to be in the Dublin region. There is a commitment to a consistent and supportive approach to the realisation of transmission and distribution assets required to support the level of datacentre ambition that we adopt.

5.4. **Ireland's Grid Development Strategy, Your Grid, Your Tomorrow, 2017**

5.4.1. Eirgrid's Development Strategy 2017 identified the need for investment in the electricity transmission system and for a long-term strategy to develop the electricity grid. The objective is to optimise the existing grid to meet projected demand levels, policy objectives and to ensure a long-term sustainable and competitive energy future for Ireland.

5.5. **Regional Spatial & Economic Strategy for the Eastern & Midland Region**

5.5.1. Regional Policy Objective 10.19 is to support the roll-out of smart grids enabling new connections, grid balancing, energy management and micro grid development.

5.5.2. Regional Policy Objective 10.20 relates to energy infrastructure including facilitating new transmission infrastructure projects.

5.5.3. Regional Policy Objective 10.22 relates to supporting reinforcement and strengthening of the transmission and distribution network.

5.5.4. Regional Policy Objective 8.25 states that local authorities shall 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.

5.6. South Dublin County Council Development Plan, 2016-2022

5.6.1. The site is within a very large area which is zoned ‘EE’ the objective of which is “to provide for enterprise and employment related uses.” Enterprise centres, industry and public services are among the uses permitted in principle under this zoning objective.

5.6.2. Section 11.2.5 notes the specific character of enterprise and employment areas and table 11.18 sets out specific criteria for development of such lands. The criteria relate to access and movement, open space and landscape, built form and corporate identity for development within Enterprise and Employment Zones. This includes the retention of important natural features and the provision of natural buffers, as well as building heights responding to the surrounding context.

5.6.3. ET3 Objective 5 requires that all business parks and industrial areas are designed to the highest architectural and landscaping standards and the natural site features are retained and enhanced as an integral part of the scheme.

5.6.4. Energy Policy 11 Service Providers and Energy Facilities states that it is the policy of the Council to ensure that the provision of energy facilities is undertaken in association with the appropriate service providers and operators and the Council will facilitate sustainable expansion of existing and future network requirements to ensure satisfactory levels of supply and minimise constraints for development.

5.6.5. E12 Objective 2 is to ensure the proposals for energy and communications developments integrate with their surroundings and mitigate against negative impacts on visual amenity.

5.6.6. Economic and Tourism (ET) Policy 3 Enterprise and Employment (EE) is to support and facilitate enterprise and employment uses in business parks and industrial areas.

5.6.7. Policy ET3 Specific Local Objective 1 is to review the zoning of land south of the Grand Canal and west and north of the R120 and prepare a long-term plan for

expansion of the Grange Castle Economic and Enterprise Zone to accommodate strategic investment.

5.6.8. Policy G5 relates to supporting Sustainable Urban Drainage Systems and to maximise the amenity on biodiversity value of these systems. G5 Objective 2 is to promote the provision of green roofs and/or living walls in development where expansive roofs are proposed such as industrial, retail and civic developments.

5.6.9. IE 8 Objective 5 states that within the Department of Defence Inner Zone as delineated on the Development Plan Index Map, in addition to the obstacle limitation surfaces for the aerodrome, no buildings or structures exceeding 20 m in height above ground level should be permitted save where agreed with the Department following consultation.

5.6.10. In the vicinity of the site to the north along Peamount Road is a 6-year roads objective and there is also longer term indicated roads objectives including on lands to the north.

5.6.11. Protected structure 155 is described as a detached four bay two -storey farmhouse in Milltown. The location of the relevant icon on the map shows this within the site but the planning authority report states that it is outside the application site. There is also nearby a pair of cylindrical rendered limestone gate piers which are designated as a protected structure number 160. These are both separated from the site by a rural dwellinghouse.

5.7. Natural Heritage Designations

5.7.1. The Grand Canal proposed Natural Heritage Area is located 1km to the north.

5.7.2. Rye Water Valley/ Carton SAC (Site code: 001398), which is c. 4.6km away is the nearest European site.

6.0 Submissions

6.1. Planning Authority

6.1.1. South Dublin County Council's Chief Executive's Report strategic summary is:

- the proposed development will be of positive benefit having regard to the provision of increased power supply to zoned lands
- the proposed development is in accordance with the EE land-use zoning and the development plan
- issues relating to transportation, water and surface water services require to be addressed by further information and/or conditions.

6.1.2. Regarding the purpose of the proposed development, it is:

- to facilitate export of power where there is a recognised constraint in the National Grid
- to support future growth in the area but not to provide backup or permanent power to the ICT facility
- to be located on a site that is suited to accommodate such use and it will facilitate development of Grange Castle West Business Park.

6.1.3. The main development plan provisions and relevant issues are:

- part of the site to the east is within the Department of Defence Inner Zone –
- the majority of the site to the west is outside this zone
- a small area close to the Griffeen is designated as an area of flood risk
- there is policy support for expansion of the Grange Castle Economic and Enterprise Zone to accommodate strategic investment
- other referenced policies relate to supporting provision of energy facilities and developing the evolving green infrastructure network and a range of other matters
- public services are permitted in principle in the EE zoned lands.

6.1.4. The comments relevant to architectural and archaeological heritage are:

- two protected structures are outside of the application site and given the existing permission and the proposed landscaping there would not be a significant impact above the development already permitted

- a number of the archaeological sites identified in the EIAR are not contained within the development plan and are better dealt with by the relevant national body.

6.1.5. The comments on public surface water drainage facilities and flooding are:

- SDCC Water Services has no objection on grounds of flood risk subject to conditions.
- Irish Water has indicated no objection subject to conditions.
- SDCC Water Services also advises that additional information is required regarding surface water as the attenuation areas are undersized. The amount of land sealing proposed is of concern and the area of impervious surface has not been taken into account in the previous proposals. Storage volume needs to be demonstrated to be suitable including by submission of calculations and other details by further information or condition.
- The planning authority welcome the wetland meadow / riparian zone and the associated public amenity area to the element of the site fronting the R120.
- Proposals for green roofs and/or living walls should be requested by additional information or addressed by condition.

6.1.6. Comments relating to landscape status and visual impact include:

- Referencing the submission of the applicant in paragraph 11.28 the planning authority notes that the application for the ICT facility is subject to additional information and the planning authority request that the landscaping associated with this proposal be subject to condition – the planning authority is concerned regarding the overall green infrastructure on the site and the implications for SuDS and landscaping.
- The Board should request that further information is provided regarding the proposed materials for construction of the substation.
- The comments of Parks include a requirement for an updated tree survey to include the proposed grid connection route. There are trees along the grid connection route that have been identified as having potential for bat roosts.

An up-to-date bat survey is required for the proposed development site including along the transmission route.

6.1.7. Regarding the carrying capacity and safety of road network serving the proposed development:

- Significant works are proposed to the existing regional and local road network
- The Roads Section considers that the proposal is acceptable subject to conditions relating to 7-day notice, closure of temporary site access, public lighting, Construction and Demolition Waste Management Plan, Construction Traffic Management Plan, complying with SD 20A/0058, road opening licence and taking in charge.

6.1.8. Regarding the environmental carrying capacity of the site and surrounding area and the likely significant impact from the proposed development:

- The proposed route includes a directional drill for 100m under the Griffeen River to connect with the existing road network to the west. It is accepted that it is not possible to follow the existing road network at Old Nangor Road (closed) due to the volume of other underground infrastructure elements. The only option appears to be to directional drill for 100m and the planning authority seeks to protect and augment the river at this location if possible.
- The planning authority recommend that the Board seek additional information relating to revised sectional drawings to show the full river and western embankment and the existing road, to facilitate assessment of the impact if any on the river and to propose any mitigation measures to protect the river and its banks. Revised sectional drawings 04 and 05 are required.
- The planning statement notes that the Griffeen River is culverted at this location. Section 05 also seems to indicate that it is an engineered channel. Photographs taken on site indicate that the stream is open and natural at this point – see appendix 5. It is necessary to ensure that this drain is not compromised at this point and to ensure that there is no damage to the embankment as part of the HDD. The PA requests that the condition is imposed requiring maintenance or enhancement of the green infrastructure at this location. The mitigation measures set out in the EIAR which seek to

protect the river and surface water during construction should be secured by way of condition.

- In addition, resulting from the provision of extensive wayleaves through the site there may be a negative impact on the EE zoned lands. It would be preferable as stated that the cable follows the route of the road to minimise this impact. It is recommended that the Board seek additional information regarding the impact of wayleaves on the EE zoned lands and clarification that this route taken has the least impact possible.

6.1.9. Comments on biodiversity include:

- Due to the length of time since previous internal surveys it is recommended that further information be sought regarding bats.
- No breeding bird or wintering bird surveys were undertaken, and the planning authority recommend that further information be sought regarding birds.
- If permission is granted mitigation measures should be secured by way of condition.

6.1.10. The impact on Casement and aviation safety – there would be no buildings that would impact on the development plan policies.

6.1.11. Regarding residential amenity the main impacts from the proposal, other than construction, would arise from the substation. The EIAR has examined noise, vibration, human health and air quality/climate in some detail. The measures recommended in the EIAR should be secured by way of a grant of permission. No report has been received from the EHO.

6.1.12. An Bord Pleanála is the competent authority for appropriate assessment and EIA.

6.1.13. The planning authority view in relation to the decision to be made by the Board is as follows:

- It is apparent that the area is one in which significant changes taking place.
- There is merit in the siting of the proposed development which would connect the permitted power generation facility to the Grange Castle area.
- Further information is required.

- If the Board considers granting permission it is recommended that conditions should be attached in relation to a number of aspects of the development as set out.

6.2. Prescribed Bodies

6.2.1. Health Services Executive

6.2.2. The main points of this submission are:

- EHS are satisfied that there will be no likely significant effects on land, soils and geology environments and any risks can be mitigated by measures outlined in the EIAR.
- EHS satisfied that the risk to surface water will be low and that any risks to water identified in the EIAR can be mitigated by measures outlined in the EIAR.
- EHS are satisfied that with the application of noise limits, hours of operation and implementation of noise and vibration control measures noise and vibration impact will be kept to a minimum. EHS welcomes the requirement that the contractor monitor noise and/or vibration during critical periods and at sensitive locations.
- EHS considers that additional noise monitoring is required at the identified noise sensitive locations once the development is operational to ensure that the local community is protected from noise levels in accordance with the criteria set out herein.
- EHS are satisfied that there are no risks to air quality and climate and that the implementation of mitigation measures outlined will ensure that any effects are negligible and imperceptible.
- In summary the recommendation is that additional noise monitoring be carried out once the development is operational.

6.2.3. Transport Infrastructure Ireland

6.2.4. The main points of this submission are:

- If required a permit would have to be obtained to transport abnormal loads.

- There are no national road interactions to address.

6.2.5. **Department of Housing, Local Government and Heritage (Development Applications Unit)**

6.2.6. The main points of this submission are:

- The demolition of Bulmer and the removal of trees results in a biodiversity loss which should be compensated for to some extent by the installation of the attenuation pond and the planting of a large number of trees and shrubs.
- The proposals for direct drilling are satisfactory. The measures to be adopted will avoid pollution and should avoid detrimental impacts on the watercourse, it's riparian zone and associated biota.
- The derogation licence should have been applied for before submitting the application and new bat activity surveys of Bulmer and its outbuildings should have been carried out in 2019 at a period when bats are active in order to survey for further roosting bats. It would seem that it is not likely that there are any large bat roosts present.
- The EIAR does not take account of the possibility of birds nesting in Bulmer or its outbuildings. Several species such as starling, house and tree sparrows and house martin commonly nest in buildings.
- Any grant of permission should be subject to conditions requiring new bat activity surveys in 2021 during the period May to August and related requirements and that the demolition of the building and removal of shrubs and trees from the development site be carried out only from September to February inclusive, to ensure protection of breeding birds.

6.2.7. **Department of Defence**

6.2.8. The main points of this submission are:

- Due to proximity to Casement Aerodrome it is requested that the developer provide an Aviation Impact Assessment on all potential effects on Irish Air Corps operations. This should cover aerodrome obstacle limitation surfaces,

effects of potential emissions, tall construction equipment such as cranes, management of wildlife and any other associated impact on flight operations.

6.2.9. Geological Survey Ireland

There are no specific comments in the submission which are directly relevant to the making of a decision on the case.

7.0 Planning Assessment

I propose to assess the planning issues in this case under the headings below:

- Principle and policy issues
- Residential amenity
- Material assets
- Water services and flood risk
- Other matters.

7.1. Principle and policy issues

The purpose of the development is to provide for the export of power from the permitted PGF and to provide permanent power supply for the ICT facilities at the adjacent lands. The substation will be operated by EirGrid and will be constructed and maintained by ESB Networks under the direction of EirGrid.

I consider that there is strong national, regional and local support for this development in the context of the clear and well aligned policies relating to strengthening of the electricity grid. The proposed development would accord with the EE zoning for the site under which enterprise centres, industry and public services are amongst the uses which are permitted in principle.

I consider that the scale and nature of the development is compatible with the emerging character of the overall site where two major permitted developments will be located immediately adjacent the substation. The development is also compatible with the emerging character of the wider area, which is undergoing remarkable transformation at a rapid pace and which is identified for expansion of economic and

enterprise uses. The development will directly support and facilitate the functioning of the permitted PGF and ICT facilities. The layout and planning of services including with respect to works along the regional road and the landscaping and servicing of the site together with environmental mitigation has been jointly considered in a comprehensive manner for the 3 no. facilities to be constructed at the overall site. The overall site has been subject of a Masterplan which provides for its coordinated development and on completion it will comply with development plan policies requiring high architectural and landscaping standards.

The proposed development is deemed by the planning authority to be of positive benefit having regard to the provision of increased power supply to zoned land and to be in accordance with the zoning and specific objectives of the development plan. I concur with this conclusion and consider that the proposed development is in accordance with the provisions of the development plan and will provide for the proper planning and sustainable development of the area.

7.2. **Residential Amenity**

7.2.1. I consider that in the context of the scale of the permitted development at either side of the subject site the proposed substation, transformers and MV control building compounds on completion and maturation of landscaping are unlikely to give rise to significant effects on amenities of the nearby residential dwellings located along Peamount Road or the halting site to the north-east. The nearest dwellinghouses are some distance from the substation and would be separated by the permitted ICT facility and thus there would be no likelihood of additional noise or air quality, including dust, or of visual effects. A number of elements of the proposed development which are located at the Peamount Road have already been granted permission including fencing, landscaping, roads and parking. The proposed development therefore would not be likely to result in significant additional visual impacts.

7.2.2. There is potential for visual effects, traffic congestion and noise related to cable laying along the regional road has the potential to adversely impact a few dwellinghouses. The application submissions include an Outline Construction Environmental Management Plan. Due to their short-term duration and nature and the small number of residents, I consider that the construction phase impacts will not

be significant. As noted in the report of SDCC the EIAR has examined noise, vibration, human health and air quality/climate in some detail. SDCC suggests that the measures recommended in the EIAR should be secured by way of condition.

7.2.3. I have considered the point made by the Health Services Executive regarding additional operational noise monitoring at the identified noise sensitive locations. The context in this case includes a current live application for an IED licence for the permitted PGF. I consider it preferable that the control of noise emissions from the proposed development, once completed, would not be subject to a specific detailed monitoring condition, which might conflict with the decision of the planning authority relating to the ICT facility. Under the governing conditions of the ICT permission the requirements of the EHO relating to hours of construction, construction and operational noise and other matters are specified. I recommend that this condition be reiterated in the Board's decision.

7.2.4. I conclude that the development is acceptable in terms of the impacts on residential amenity.

7.3. **Material assets**

7.3.1. The proposed connection to the Castlebaggot-Kilmahud circuit will comprise a 940m long grid connection following the access road in the overall site, crossing along the R120 and the former Nangor Road and under the Griffeen River and the realigned Baldonnel Road. All of these crossings will be by horizonal drilling thereby eliminating concerns with respect to significant traffic congestion and avoiding the need for in-stream works.

7.3.2. SDCC in section 10 of the report has questioned the appropriateness of the selected cable route and indeed recommends that the Board seek additional information regarding the impact of wayleaves on EE zoned lands and clarification that the route selected has the least impact possible. I would agree with the position of SDCC that it would be preferable if the proposed infrastructure followed the existing road network from its starting location at Peamount Road until its terminus at the Castlebaggot-Kilmahud circuit. To follow the upgraded road network would have involved a very circuitous route. The selected route takes a course along the Old Nangor Road before diverting in a north easterly direction under the river. I do not

consider that the additional wayleaves which are created would significantly impact on the future development of the zoned serviced lands. I note also that it is accepted by SDCC that it would not been possible to entirely follow the route of the old Nangor Road as there are already infrastructural services in place. In its conclusion SDCC note that the substantive part of the proposal would be located within existing or proposed roads infrastructure and would only divert from this where existing underground infrastructure already in place would prevent this. I agree with this conclusion and consider that the selected route is appropriate and that it strikes the optimum balance between route length and avoidance of impacts on material assets.

7.3.3. The second relevant issue relating to material assets is the location of part of the eastern side of the site within the Department of Defence Inner Zone for Casement Aerodrome. The development plan requirement is that no buildings or structures exceeding 20 m in height above ground level should be permitted save where agreed with the Department following consultation. The proposed development does not contain structures of that height, the substation height being under 15 m and the lighting masts 18.93m height and these are located beyond the Inner Zone. Due to proximity to Casement Aerodrome, the Department of Defence requested that the developer provide an Aviation Impact Assessment on all potential effects on Irish Air Corps operations. This would include impacts related to tall construction equipment and management of wildlife, both of which were specifically referenced in the submission of IAA under the PGF application. The submission of the Department of Defence does not explicitly state that the AIA be submitted prior to a grant of permission. Having regard to the permitted development at adjacent lands and the extant permission for the surface water attenuation feature, I recommend that this matter be addressed by condition. I note that the relevant condition under the ICT permission relates to crane operation only while conditions 17(b) and 18 under the PGF permission address issues which would be relevant to the current application. My recommended condition is deliberately worded to avoid excessive detail but at the same time provide considerable latitude to the planning authority to ensure that the requirements of the Department of Defence can be met.

7.4. Water Services and Flood Risk

7.4.1. I consider that the most significant matter under this heading topic is the proposals for surface water management. I refer below also to water supply, foul drainage and flood risk. The proposed development provides for changes to the attenuation pond permitted in connection with the PGF. In the interim permission has been granted for the ICT facility based on revised proposals submitted during the course of that application and subsequent to the date of lodgement of the current application to the Board.

7.4.2. The Water Services Report submitted by the applicant adopts a SuDS strategy for the site with disposal to the existing public surface water network 550m from the site. That connection will involve constructing a 225 mm outfall pipe along the R120 and R134. The applicant states that the flows from the development will be attenuated in the Detention Pond which is sized to cater for all three developments at the overall site for the 100-year critical storm event, plus 20% allowance for climate change. In this regard there is specific reference in section 8.31 of the EIAR to reg. ref. SD20A/0324. The stated increase in overall hardstanding area as a result of the proposed development is 2,400m^2.

7.4.3. The Water Services Report gives a commitment that all SuDS measures will be agreed with SDCC. The main attenuation areas in the southernmost corner of the site of the proposed development provides for storage of 2,903 m^3 and a second pond to the east provides for an additional 325 m^3. The calculations provided are based on an impermeable area of site of 5.517 ha out of a total site area of 8.173 ha.

7.4.4. The SDCC engineering recommendation is that revised drawings be sought as well as calculations for proposed development based on a maximum rate of Qbar Rural. The applicant's proposals are considered to fail to provide for sufficient long-term storage on the site as defined under the Greater Dublin Regional Code of Practice for Drainage Works. The planning authority report supplements the engineering report noting elements of the planning history. In particular the layout submitted as further information under SD20A/0058 included the GIS substation and neither this nor the Transformers / MV switch room compound element of the proposal were accounted for in terms of the proposal nor were they considered in the previous development.

7.4.5. Since the lodging of this application with the Board the planning authority has granted permission for the ICT facility under Reg. ref. 20A/0324 and under consideration of that application there were no particular concerns outlined relating to surface water drainage arrangements. In the circumstances of this case and having regard to the amount of open space which would be available and suitable for the increased attenuation areas I consider that it would be reasonable to deal with this matter by condition rather than request further information. The planning authority has set out a recommended wording which I have generally adopted but reference to the revised submission under reg. ref. SD20A/0324 is also appropriate. On this basis I consider that the proposed development is acceptable in terms of surface water drainage.

7.4.6. I consider that having regard to the comments of Irish Water and the information presented in the Water Services Report, the development is acceptable in terms of water supply requirements, including firefighting requirements. This report includes a commitment to adhere strictly to the requirements of SDCC and Irish Water in relation to the firefighting, water conservation measures, metering and pressure control aspects of the watermains works.

7.4.7. Foul effluent disposal from the development can be accommodated by way of discharge to a nearby public sewer. Irish Water has responded to a pre-connection query with a confirmation of feasibility for the proposed development.

7.4.8. Regarding flood risk I note the report of JB Barry and Partners submitted with the application. The flood risk assessment undertaken notes that under the relevant Flood Risk Management guidance the land uses and types of development for which permission is sought would be described as highly vulnerable development including essential infrastructure. Part of the Griffeen River has been subject to flood events. As reported in the FRA documentation, the CFRAMS map shows that the flood extent of the river does not extend to the northern portion of the development site, which is in Flood Zone C. The transmission lines will cross the 1% AEP fluvial flood but as they will be underground, they will not be at risk of flooding. Based on the FRM guidelines it is stated that this is therefore an appropriate location for highly vulnerable development. The report sets out recommendations relating to minimum finished floor level to ensure that it is above the 0.1% AEP fluvial flood event.

7.4.9. I consider that the assessment of flood risk is sufficient and that the conclusions of the submitted report can be adopted. I note in addition the recommendations of the planning authority which include conditions. I consider that the recommendation of SDCC that suitable measures be undertaken to mitigate any flood risk is slightly vague and that the measures set out in the FRA are sufficient in this respect. I consider that the Board's standard condition relating to water services would cover the other matters which are recommended. I am satisfied that the proposed development would not be at risk or give rise to risk of flooding of other lands and is acceptable on this basis.

7.4.10. I conclude that the proposed development is acceptable in terms of water services and flood risk subject to the conditions recommended below.

7.5. **Other matters**

7.5.1. It is appropriate to further consider the **interactions between the permitted PGF and the permitted ICT facilities and the proposed development**. I consider that the relevant environmental topics relate to landscape and visual impact, hydrology and ecology. For the purposes of the planning application reg. ref. SD20A/0058 the site of the PGF comprised the overall site. I attach a copy of the masterplan drawing relevant to the permitted development at that site. While this permission governs the entire site, it has been superseded by the decision of the planning authority to grant permission for the ICT facility in June 2021, following a request for further information the response to which was received on 19 May 2021. Pending a final decision from the planning authority for the ICT facility the current application proposed amendments to aspects of the permitted PGF. In assessing these amendments, the context has changed, and it is now necessary to consider the permitted ICT as the baseline. In this respect I refer the Board to the full planning history of planning reg ref SD 20A/0324 attached and which is summarised above. In considering the substantial aspects of the proposed ICT facility, part of which is within the site of the proposed development the planning authority secured various amendments and alterations to the road network including a reduction in parking and road width and an increased provision of green infrastructure and associated planting. I consider that these provisions enhance the development. Therefore, in order to avoid conflict between the permission granted for the ICT facility and any

permission which may be granted on foot of this current application and in order to enhance the visual and ecological benefits incorporated in the further information response under SD 20A/0324, I recommend that the roads, entrances layout, parking and landscape details be in accordance with the development permitted under SD 20A/0324 unless otherwise agreed with the planning authority.

7.5.2. The planning authority has requested revised sectional drawings 04 and 05 to show the full river and western embankment and the existing road, to facilitate assessment of the impact if any on the river and to propose any mitigation measures to protect the river and its banks. I do not consider that this small but not insignificant detail needs to be addressed under the further information request as it is suitable to be addressed by condition.

7.5.3. The Board may wish to consider whether there would be a need for any conditions governing the phasing or any other aspect of the development on the overall site and its three constituent elements. It is indicated in this application that the three projects will be constructed simultaneously and the documentation including the assessment of environmental impacts and screening for appropriate assessment is based on this approach. It would be inappropriate in my opinion to consider any conditions with respect to the phasing of construction.

7.5.4. I note the recommendation of SDCC with respect to an updated tree and bat survey to cover the linear route and I have drafted a condition to address this matter.

7.5.5. I am not convinced that the proposed development is evidently suitable for the introduction of green roofs and / or vertical planting and have not set out a specific requirement in this respect notwithstanding the development plan policy. I am of the opinion that the overall landscaping approach is in line with the development plan policies with respect to green infrastructure.

7.5.6. I consider that the Board's standard condition with respect to external finishes is sufficient in this case.

7.5.7. A number of technical issues relating to roads can be addressed by a suitable condition requiring agreement and the development is acceptable in this respect.

7.5.8. There is no requirement under the SDCC general contribution scheme for payment towards a development of the type proposed. There is no relevant supplementary

scheme and requirement for special contributions. I agree with the recommendation of SDCC that there is no need for a community gain condition.

7.6. Conclusion

7.7. I conclude that the proposed development is in accordance with the relevant development plan policies and is in accordance with the proper planning and development of the area.

8.0 Environmental Impact Assessment

8.1. Introduction

8.1.1. The application submissions include an Environmental Impact Assessment Report entitled *Environmental Impact Assessment Report –Peamount Substation and Transmission lines Milltown*.

8.1.2. This section of the report comprises an assessment of the likely significant effects of the proposed development. It addresses compliance with legislation and describes and assesses the likely significant direct and indirect effects of the development against the factors set out under Article 3(1) of the EIA Directive 2014/52/EU. It considers cumulative effects and interactions and the vulnerability of the proposed development to major accidents and disasters.

8.2. Compliance with Legislation

8.2.1. The legislation relevant for the purpose of considering whether the information contained in the EIAR is adequate is A94 of the Planning and Development Regulations 2001, as amended, and the provisions of A5 of the EIA Directive 2014.

8.2.2. The EIAR is in three volumes, a non-technical summary, the main chapters and the appendices.

8.2.3. Following examination of these documents I consider that the EIAR identifies, describes and assesses in an appropriate manner, the direct and indirect significant effects of the project on the following environmental factors:

(a) population and human health;

(b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;

(c) land, soil, water, air and climate;

(d) material assets, cultural heritage and the landscape

and equally considers the interaction between factors referred to in points (a) to (d).

8.2.4. In accordance with article 5 and Annex IV, the EIAR provides a description of the project comprising information on the site, design, size, characteristics and other relevant features. It also provides a description of the likely significant effects of the project on the environment and a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment.

8.2.5. The EIAR provides a description of the evidence used to identify and assess the significant effects on the environment. The EIAR generally provides an adequate description of baseline information used to identify and assess the significant effects on the environment. Any significant difficulties which were encountered in compiling the required information are generally identified.

8.2.6. In relation to documentation, I note the use of site-specific investigations and the availability and use of other data and reliance on and use of recognised guidance and assessment methodologies. I am satisfied that the EIAR has been prepared by competent experts.

8.2.7. My assessment below is based on the information provided by the applicant, including the EIAR and the submissions made in the course of the application. I have taken into account aspects of the information provided under the recent permissions for the PGF and ICT facilities. Taking this information into account I consider that there is sufficient relevant baseline information. I am satisfied that the information provided in the EIAR is sufficiently up-to-date and is adequate for the purposes of the environmental impact assessment to be undertaken.

8.3. **Alternatives**

8.3.1. Chapter 4 of the EIAR is devoted to the issue of alternatives considered.

8.3.2. The ‘do nothing’ alternative was ruled out. That alternative would mean that the PGF once constructed would not have the ability to export power to the National Grid in the Greater Dublin Area where there is a recognised constraint. The do nothing alternative would mean that the ICT would not have a permanent power supply and would have to operate at a fraction of its capability until another application is made.

8.3.3. Alternative project locations which were considered are described. The proposed GIS station compound was identified as part of the PGF permission. This location was assessed particularly in terms of visual impact, the length of the 110 kV transmission line and other constraints. Its location reduces the required infrastructure to connect both the PGF and ICT facility and enables the substation to be well screened from the public domain.

8.3.4. The original site layout showed the substation located parallel to the north-east boundary which was considered to have a negative visual impact.

8.3.5. The transformer compound and MV control room are adjacent to and significantly screened by the ICT development.

8.3.6. The point of connection to the Castlebaggot-Kilmahud circuit was considered in terms of a range of alternative routes and connection points. Once the connection point was established by Eirgrid alternative routes were considered with respect to how to traverse the river with minimal environmental impact and avoiding third-party lands. The focus of alternatives related to different arrangements of linking from Old Nangor Road, minimising the length of drilling and remaining within the road alignment where possible. Amongst the stated considerations were impacts on way leaves and easements.

8.3.7. Regarding alternative designs or layouts for the substation these are dependent on ESB networks requirements for the proposed 110kV GIS substation compound. The flexibility to select alternative processes and technologies was not available to the applicant.

8.3.8. The alternatives for mitigation were considered by each specialist in considering likely impacts of the proposed development. Avoidance, prevention and reduction were all considered.

8.3.9. The selected 110 kV transmission line route is therefore deemed to be the most suitable from an engineering and environmental perspective offering the shortest

construction phase and thus a shorter duration of any potential environmental impacts. The proposed route and the alternative route were considered to have a neutral, imperceptible, long-term environmental effect during operation.

8.3.10. I consider that it is evident that detailed consideration of alternatives has been undertaken and that in this respect the EIA legal requirements are met. I have also referred under the planning assessment section of this report to matters pertaining to the route selected for the grid connection and concluded that it was adequately assessed.

8.4. Public participation.

8.4.1. I have summarised above the submissions and observations received in response to this application. Section 3.7 of the EIAR briefly references the undertaking of consultation meetings with SDCC as part of the application for the PGF development in which the future GIS substation development was shown and with respect to the ICT facility application. The applicant also refers to pre-application consultation with An Bord Pleanála.

8.4.2. I consider that the statutory requirements under EIA with respect to public consultation have been met.

8.5. Population and Human Health

8.5.1. In consideration of population and human health under the EIA section below I present an overview of the existing environment, the impacts arising and relevant mitigation. Population and human health are assessed in Chapter 5 of the EIAR but the topic also significantly overlaps with information presented in other chapters.

Existing Environment

8.5.2. The EIAR assesses the electoral divisions in terms of demographics. The Newcastle electoral division increase in population (61.8% increase between 2006 and 2016) is significant and is attributed mainly to growth in Newcastle. The site context in terms of the residential population is primarily one-off housing. The nearest occupied residential properties are 170 m to the south of the substation site and 320 m to the south-east. There is a halting site 290 m to the north-east of the proposed substation

and some ribbon development in the general area. The transmission lines pass adjacent to 2 no. residential properties to the south-east.

8.5.3. Regarding community facilities Peamount Healthcare facility is 600 m to the south-west of the proposed substation. There are no schools in the immediate area. Newcastle golf centre is 160 m to the west from the proposed substation site. The Grand Canal is 930 m to the north. The existing land use context to the north, immediate east and west is primarily in agricultural use but zoned EE. Casement Air Base is 1.5 km south-east of the application site.

8.5.4. Grange Castle Business Park, Grange Castle South Business Park and Grange Castle West are already home to several industrial facilities comprising a number of different land uses. These include pharmaceutical and food facilities. The UBC Properties data centre complex is under construction to the south-east of the connection to the Castlebaggot-Kilmahud circuit. To the north of the application site Grange Castle West access road is under construction.

Potential Impacts

8.5.5. In the construction phase dust and air quality, visual effects, noise and vibration emissions have the potential to affect amenity, business activities, population and human health.

8.5.6. Potential impacts on human health from air quality are assessed in Chapter 10 and there is a potential impact on humans due to dust generation. Dust from construction related activities would be expected to have a short-term and not significant effect.

8.5.7. Noise and vibration impacts could give rise to potential effects on human health during construction. Noise emissions are expected to be less than the prevailing ambient noise level at the nearest sensitive locations. The short-term construction phase is not therefore expected to significantly impact the existing noise environment. Due to distance vibration impacts are expected to be negligible.

8.5.8. There will be no direct impact on local parks, larger amenity areas or on local tourism or shopping facilities.

8.5.9. Potential impacts related to traffic congestion and associated noise and pollution including short-term diversions could impact population and human health.

8.5.10. The employment of 15 to 30 construction workers is anticipated during the construction phase.

Mitigation

8.5.11. The implementation of a CEMP is the overarching mitigation measure which will address air quality, noise and vibration which could give rise to potential effects on human health during construction. Subject to implementation of this measure and compliance with the conditions of any permission, it can be anticipated that there will be no significant effect on human health as a result of the construction of the proposed development.

8.5.12. In terms of the different environmental topics and potential effects on human health due to air quality and climate and noise and vibration these are as set out in Chapters 9 and 10. Any increase in air pollutant concentration would not exceed air quality standards, which are set for the purposes of protecting human health. Noise levels will not be significant in the context of the ambient noise levels and will be temporary in nature.

8.5.13. The potential for traffic related impacts will be mitigated as described in Chapter 12 by the undertaking of works outside of the main commuter hours and the retention of at least a single carriageway open for the duration of construction.

Residual Impacts

8.5.14. The residual effects on population and human health would be short-term temporary disruptions related to the construction of the development and short-term positive and imperceptible impacts related to the short-term employment.

8.5.15. The proposed development would provide support for future enterprise and employment in the wider area.

Cumulative impacts

The construction of the PGF and ICT developments will be undertaken at the same time as the construction of the proposed development. The cumulative effect will be a short-term, imperceptible positive effect through the provision of employment.

The potential cumulative impacts on population and human health in terms of air quality and climate, noise and vibration is assessed in the relevant chapters and described as negative, short-term and not significant. Similar conclusions may be

drawn with respect to cumulative traffic and transportation impacts on population and human health which are assessed as having a short-term, neutral and not significant effect.

With respect to operational noise a cumulative modelling exercise was undertaken to assess the ICT, PGF and the subject proposal. This is assessed as being long-term and not significant. There are no other significant cumulative effects relevant to population and human health in the operational phase. I have considered the submission of HSE with respect to operational monitoring of noise and addressed this under the planning assessment.

Once operational the employment at the overall site will be 20 people PGF and 150 at the ICT facility.

Conclusion

8.5.16. I have taken into account the contents of the EIAR and the submissions on file and I am satisfied that potential effects on population and human health would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions.

8.5.17. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on population or human health.

8.5.18. I conclude that following mitigation the significant effects on Population and Human Health are as described below.

- Negative short-term construction phase impacts on Population and Human Health due to noise and disturbance, which will be mitigated by a range of measures and through implementation of the CEMP.
- Positive long-term impacts on Population and Human Health due to employment and economic benefit to the area.

8.6. Biodiversity

8.6.1. The information presented and methodology has taken into account relevant guidance. Limitations are generally acknowledged. These include poor timing the surveys of habitats and flora, which is not considered to hamper identification of species. In general, I accept the justifications presented and consider that the

baseline information is generally adequate. It is necessary however to further consider the adequacy of baseline information with respect to bats and birds.

8.6.2. The submission of DAU requested that the bat survey be updated during May to August when bats are most active and also that further details of lighting and bat boxes be provided. In describing the existing environment and potential impacts I have taken into account the further information which was presented by the applicant in relation to the recently permitted ICT facility, the site of which overlaps the subject site. The application documents associated with the ICT facility included revisions and updates and confirms the EIAR information relating to bats. I consider that the totality of information available with respect to bats is therefore adequate.

8.6.3. The submission of the DAU notes the absence of a breeding bird survey as the basis for the EIAR and reports that a number of bird species including house martin may nest in buildings. As further described below, the level of information available with respect to use of buildings and trees and shrubs by birds is not complete and some species present and identified under the ICT application are not noted in the EIAR for the current application. I am satisfied this is a minor issue and relevant only to bird species which would not be qualifying interests of any nearby European site. I note that DAU has not recommended that further information be sought. I note the general legal protections available and also refer to the fact that the relevant area for the protection of birds (and bats) is within the site of permitted development. Permission has recently been granted for works at the majority of the subject site including the undertaking of demolition of buildings and removal of trees and shrubs. I do not consider that a further information request is warranted.

8.6.4. I am therefore satisfied that there is sufficient information on the existing environment presented to enable the undertaking of EIA.

Existing environment

8.6.5. The key ecological receptors identified in the EIAR are as follows:

- Grand Canal pNHA 1km to the north and Liffey Valley pNHA 3.9km to the north.
- Bats – this includes two bat roosts containing a single bat each in outbuildings of the house Bulmer. The main area of bat activity is close to the houses.

Updated surveys in March 2021 confirmed no significant changes to the outbuildings where the two roosts are sited. On the overall site 4 no. bat species have been identified. Trees and tree lines are considered to provide suitable foraging and commuting routes but the overall level of activity on the overall site is low.

- With respect to breeding birds, mainly common bird species are reported in the EIAR. Use of the site by buzzards was also recorded in 2021. There is no specific reference in the EIAR to the 3 no. nests present in the gable of Bulmer, which I assume are swallow / house martin nests and which appear to be well established. House martin and swallow nests were reported in section 6.63 of the EIAR for the ICT application.
- Other notable bird species are described as visiting the site but not in significant flocks. This would include a number of seabirds which would travel long distances.
- Small mammals which may be present within the site, but which would not be rare or protected.
- Amphibians may be present in a drainage ditch near the Griffeen.
- Hedgerows, treelines, immature woodland, scrub.
- Dry meadows and grassy verges.

Potential impacts

8.6.6. There are no hydrological or other links to the Grand Canal pNHA. There is no potential for impact on other nationally designated sites given the distance and dilution and dispersion of any surface water run-off/discharges.

8.6.7. The development requires removal of dry meadow and grass verge habitat at the eastern end of the site. At the entrance to the main site removal of the tree line (ash) is required to ensure safe sightlines at the junction onto the R120. There is a general risk of damage to trees.

8.6.8. The crossing of the Griffeen river by directional drilling ensures no direct impacts on the river or drain or immature woodland. There is potential for surface water impacts due to construction impacts including accidents.

8.6.9. There are potential impacts on bats during the construction phase including direct impacts related to the removal of trees and demolition of buildings or the indirect impacts related to disturbance and displacement effects. It is anticipated that there will be no lighting during construction. In the operation phase artificial lighting could impact negatively on bat activity.

8.6.10. The removal of two tree lines and six individual trees and the construction phase would result in a loss of foraging/nesting habitat and temporary displacement of birds.

Mitigation

8.6.11. The area of dry meadow is likely to be naturally regenerated. No mitigation is proposed.

8.6.12. As set out under the ICT application there will be a need for a derogation licence with respect to the loss of roost sites and potential for bat mortality and/or disturbance.

8.6.13. The protection of trees, tree lines and hedgerows as well as surface waters will be subject of standard best practice mitigation measures which are described in detail.

8.6.14. The application submission contains biodiversity enhancement measures incorporated in the landscape design.

8.6.15. Bat mitigation measures presented address relevant issues including the supervision of demolition works and provision of alternative roost facilities during and post construction period operational phase. The submission of DAU has requested that further information be presented to the planning authority for agreement with respect to lighting and bat boxes. The mitigation measures outlined in this application under section 6.133 are detailed and appear to me to be adequate. The type of boxes to be utilised during construction and post construction for the provision of alternative roosts are specified. Measures relating to the supervision of demolition works by a suitably qualified, experienced and licensed bat worker are described. Lighting proposals for the operational procedure will adhere to recognised guidance and will be reviewed by a qualified bat ecologist. I do not consider that there is any further requirement for mitigation measures beyond that which is specified in the EIAR.

8.6.16. The avoidance of disturbance to breeding birds will be ensured by compliance with the legislative requirements according to the EIAR. DAU requests that condition be

attached to ensure that the demolition of buildings and the removal of trees and shrubs would take place outside the bird nesting season. The applicant has not given any such commitment and the EIAR provides that where seasonal restriction cannot be observed breeding bird survey will be undertaken and if necessary, removal of trees and hedgerows may be delayed until after the nesting season. I consider that the condition recommended by DAU is reasonable and furthermore that is unlikely to impede the progress of works on the site.

8.6.17. DAU indicates that the biodiversity losses arising from the destruction of buildings and removal of trees and other vegetation will be somewhat compensated for by the provision of extensive woodland planting and provision of an attenuation pond. Planting of bird friendly plants and installation of bird boxes is also proposed within the new native woodland belt. The wetland in the south-east of the site would also be relevant with respect to the provision of additional suitable habitat for birds and the overall mitigation of biodiversity losses.

Residual impacts

8.6.18. There will be a loss of habitats including trees and treeline and dry meadows and grassy verge habitats. However, the retention of the peripheral hedgerows at the site together with the landscape design measures involving construction of two water bodies together with extensive woodland planting with species selected to promote biodiversity and suitability for birds will ensure that the ecological value including for birds and for foraging and commuting by bats of these habitats is maintained and in the long term is enhanced.

8.6.19. No residual impacts are predicted on foraging/commuting bats or on small mammals. The measures designed to protect water quality would protect amphibians.

8.6.20. There are anticipated to be no long-term significant impacts on breeding birds.

8.6.21. The conclusion presented in the EIAR is that the proposed development would have an overall neutral and imperceptible effect on biodiversity. I consider that this conclusion is reasonable, that it is supported by sufficient baseline information and suitable assessment by appropriate experts and that the relevant mitigation measures are suitably designed and sufficiently detailed.

Cumulative impacts

8.6.22. There is potential for cumulative impacts from a number of significant developments which have been permitted in the immediate and general vicinity of the site. In particular there is potential for water quality impacts on the downstream surface water environment and for disturbance to birds and bats and impacts on birds and bats due to habitat loss and fragmentation. Any cumulative impacts are not considered to be significant as there is minimal clearance of trees and tree lines as part of the proposed development and the bat roosts which are to be removed are known to support single bats only. Potential in combination effects on water quality are unlikely to be significant having regard to the mitigation set out particularly in the three permitted developments at the overall site.

Conclusion

8.6.23. I have taken into account the contents of the EIAR, the totality of the application documents on the information presented with respect to the permitted ICT facility and the submissions on file. On that basis I am satisfied that potential effects on biodiversity would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions.

8.6.24. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on biodiversity.

8.6.25. I conclude that the significant effects on Biodiversity are as described below.

- Potential adverse effects on biodiversity during the construction phase from removal of trees and structures which are habitats for bats and birds, which will be mitigated by suitable measures.
- Significant positive long-term effects on biodiversity from the strengthening of green infrastructure and the provision of new water bodies and extensive tree and woodland planting.

8.7. Land, soils, geology and hydrogeology

These topics are assessed in chapter 7 of the EIAR. The guidance which has been considered for the purposes of this chapter include the EPA and IGI guidelines

relevant to environmental impact assessment. Use was made of information from a variety of desk-based and other data sources, including the results of site investigations at Grange Castle West and a location in Newcastle.

Existing environment

8.7.1. The overall site comprises a greenfield plot which is to be developed to provide two other major facilities. The site of the proposed compounds lies between 78 m AOD in the south-east and 75 m AOD in the north-west and has an existing and long-standing agricultural use. The overall site has been investigated and soil quality results indicate no contamination is present and exploratory trial pits undertaken did not encounter continuous water table. The grid route comprises infrastructure lands mainly road verges where topsoil, made ground and tarmacadam are present.

8.7.2. There are no known geological heritage sites in the relevant area. Land uses to the west include a golf course and substantial areas of agricultural use. The site and local area is underlain by Calp limestone. The underlying aquifer is classified as Locally Important. Aquifer vulnerability is extreme on the west of the site and high on the east of the site of the substation, indicative of relatively shallow overburden depths. Limestone bedrock is found at depths in the range of 2 to 2.6 m below ground. The hydrogeological features would be rated of medium importance. The groundwater body was assessed as being of 'good' status and 'not at risk' under the Water Framework Directive. There is no evidence of springs or karstification and there are no drilled wells or source protection zones in the vicinity of the site.

8.7.3. There are no nearby sensitive receptors such as ground fed wetlands. The nearest site designated for ecology is the Grand Canal pNHA, which is fully lined and without a direct hydrogeological link to the proposed development.

Potential impacts

8.7.4. No significant dewatering or bedrock removal will be required in the proposed excavations at the main site. Therefore, the potential for impact on base flow in the Griffeen River it is low.

8.7.5. Subsoil stripping and localised stockpiling will be required and excavation of 26,256 m^3 of soil involved in the proposed development. Soils and subsoils will be used as backfill where suitable.

8.7.6. There will be a loss of agricultural land due to the proposed development. There is no likelihood of risk from seismic activity, landslide or other hazards. There is no likelihood of encountering contaminated soils at the main site. Demolition work and construction for the grid connection involved will result in the excavation of soil, tarmac and hardcore some of which material will be classified as contaminated.

8.7.7. There is potential for construction phase risks to groundwater quality if contaminated water is allowed to percolate to the aquifer.

8.7.8. In the operational phase of the development the increase in overall hardstanding will reduce the recharge to ground and could increase surface water run-off. The proposed development includes an attenuation and drainage system at the main site. There is potential for leaks and spillages from vehicles on access roads and in parking areas. In the event of a fire, firewater could contaminate soil and groundwater.

Mitigation

8.7.9. In the construction phase the reduction of impacts on soils and geology and hydrogeology will be achieved by implementation of a detailed Construction Environmental Management Plan.

8.7.10. The careful planning of construction will reduce requirements for soil excavations. Any potentially contaminated soils will be tested and classified and if necessary, removed by a suitable waste contractor. Soil stripping and stockpiling effects will be mitigated through appropriate handling and siting.

8.7.11. In all 1556 m^3 of topsoil, subsoils and tarmac/hardcore will be excavated for construction of the transmission lines and will mainly be removed off site for recovery and/or disposal. At the main site approximately 24,700 m^3 of topsoil and subsoil will be excavated, all of which will be reused for site landscaping. An additional 22,000 m^3 will be imported to complete landscaping.

8.7.12. Control and prevention of impacts related to fuel and chemical handling will be included in the CEMP. Control of exposed soil surfaces at the main site will limit potential for off-site impacts. If discharge of construction water is required, it will be diverted to the foul sewer. Pre-treatment and silt reduction measures including silt fencing, settlement measures and hydrocarbon interceptors are proposed.

8.7.13. In the operational phase there is limited potential for site activities to impact on the geological and hydrogeological environment and no impact on groundwater resources will result. Any leaks from vehicles will be managed through provision of spill kit facilities and use of mobile fuel browsers.

8.7.14. The increase in hardstanding in the operational phase protects the underlying aquifer but also reduces local recharge. The reduction in local recharge in the context of the area of the aquifer is not considered to have a significant change in the natural hydrogeological regime.

Residual impacts

8.7.15. The construction phase geological and hydrogeological residual impacts may be considered to be short-term imperceptible and neutral and of negligible magnitude.

8.7.16. The operational phase residual impact may be considered to be long-term imperceptible and neutral and of negligible magnitude.

8.7.17. Overall, the magnitude and significance of impacts on the geological and hydrogeological related attributes is negligible for the construction and operation phases.

Cumulative impacts

8.7.18. Cumulative impacts arising particular in relation to the two permitted developments at the overall site. In the construction phase the potential for cumulative impacts as a result of removal of topsoil and subsoil cover in terms of increasing bedrock vulnerability is minimised due to the underlying clayey overburden and also by the nature of the proposed development. Project specific CEMPs will be in place for the three projects which will mitigate the risks of accidental spillage and leakage from construction traffic and construction materials.

8.7.19. In the operation phase the overall increase in hardstanding cumulatively will result in localised reduced recharge to ground and increase in surface run-off, which in comparison to the underlying aquifer would not be deemed to be significant. The implementation of relevant legislation will ensure management of run-off and few leakages thereby averting the likelihood of potential cumulative impacts.

8.7.20. The loss of agricultural land is part of ongoing processes and the consequence of the zoning of the site.

8.7.21. Residual cumulative effects on land, soils, geology and hydrogeology would be long-term, neutral and not significant subject to implementation of the planned mitigation measures for the three developments.

Conclusion

8.7.22. I have taken into account the contents of the EIAR, the totality of the application documents and the submissions on file. On that basis I am satisfied that potential effects on land, soils, geology and hydrogeology would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions.

8.7.23. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on land, soils, geology and hydrogeology.

8.7.24. I conclude that following mitigation there are no significant effects on land, soils, geology and hydrogeology.

8.8. Hydrology

8.8.1. The topic of Hydrology is addressed in Chapter 8 and I have also considered the relevant engineering reports provided with the application documentation. The applicant has taken into account relevant guidance and sources of information which are outlined.

Existing Environment

8.8.2. The receiving environment includes the location of the site in the Liffey subcatchments of the Griffeen River, Lucan Stream and Baldonnel Stream. The Griffeen is 160m to the south-east of the GIS substation site and it will be crossed by the grid connection route. The Lucan Stream is 200m to the northwest of the substation site. EPA monitoring points include one nearby, the Griffeen River Station. The overall water quality status for the Griffeen Lower was bad for 2009-2015 and it is at risk for 2027.

8.8.3. There are two significant developments permitted at the lands adjacent the site of the proposed development. These are stated to have been taken into account in the design of the stormwater drainage system.

8.8.4. The comments of SDCC with respect to the natural river channel are noted – it is not culverted. The assessment is not altered by this misnomer and in other parts of the EIAR there is clear reference to the actual natural conditions of the river.

Potential Impacts

8.8.5. The construction phase impacts from site works may give rise to increased silt levels and there is potential for pollution due to accidental sills of hydrocarbons, concrete and chemicals as a result of construction activities. There is potential for water quality effects from the substation and transformer / control compound sites which could impact the Lucan Stream. Associated with the proposed horizontal drilling under the Griffeen river there is potential for water quality effects including due to the break out of mud.

8.8.6. In the operation phase there is potential for surface water quality impacts and water quality effects related to surface water discharge from the site. Due to the limited foul water which would be generated there is no likelihood of significant effects. There is a low probability of flooding associated with the proposed development.

Mitigation

8.8.7. The implementation of a Construction Environmental Management Plan is the over-arching measure presented in the EIAR. An outline CEMP has been submitted with the application. A detailed CEMP will be prepared by the contractors and by condition recommended below will be subject to the agreement of SDCC. The CEMP will include measures to prevent and mitigate all potentially polluting activities during construction and will include measures to deal with spillages and other emergencies. Important elements of this will includes measures relating to the handling of soil and management of stockpiles. Soiled water will be contained on site using settlement tanks and treated to ensure adequate silt removal. Other measures set out include mitigation to minimise adverse effects due to fuel and chemical handling and accidental releases. Site investigations in November 2020 did not find any residual contamination.

8.8.8. The crossing of the Griffeen by horizontal drilling involves locating the pits at a distance of 30m west of the river and 50m east of the river. The drilling depth commences at 7m and will be 9.7m below the river. In general, this will avoid potential impacts on the water quality in the river. The careful design of the drilling

program by a suitably experienced engineer and the monitoring and recording of mud losses will minimise any potential for adverse effects.

8.8.9. The suitable design and sizing of the surface water system will ensure no adverse effects on the local hydrology as a result of surface water disposal. Consents including licences from Irish Water will be obtained.

Residual Impacts

8.9. I consider that it may be concluded that following mitigation and in particular having regard to the recommended conditions below, the residual effects on hydrology will be long-term, imperceptible and neutral.

Cumulative Impacts

8.9.1. The potential for cumulative effects arises from the two permitted developments at the adjacent site in the event of concurrent construction. There is potential for cumulative construction phase impacts on hydrology related to increased siltation or pollution events. There is potential for operation phase cumulative impacts related to increased surface water run-off, contaminants and foul discharge.

8.9.2. As the development would be managed to comply with the CEMP and the Surface Water Regulations and subject to the suitable design and capacity of the surface water system on site including provision of hydrocarbon interceptors and other proposed measures there is no likely cumulative discharges which would affect on water quality or flows.

Conclusion

8.9.3. I have taken into account the contents of the EIAR, the totality of the application documents and the submissions on file. On that basis I am satisfied that potential effects on hydrology would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions.

8.9.4. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on hydrology.

8.9.5. I conclude that the significant effects on hydrology are as described below.

- Potential adverse impacts on water quality during the construction phase from silt, hydrocarbon or chemical runoff, which will be mitigated by the implementation of a Construction Environmental Management Plan and other measures.

8.10. Air and Climate

The assessment of air quality is based on compliance with the appropriate standards or limit values. The Air Quality Standards Regulations, 2011 incorporates Directive 2008/50/EC, which sets limit values for a number of pollutants relevant to this assessment. The TA-Luft standard has been applied for this assessment as a standard for dust deposition. Table 10.1 sets out the relevant ambient air quality standards for dust, NO_2, PM_{10} and $PM_{2.5}$. The assessment for dust is based on the UK IAQM guidelines. The relevant climate agreements and Irish guidance and legislative context as described in sections 10.8 – 10.13.

Existing environment

8.10.1. The receiving environment is described utilising meteorological data from nearby Casement Aerodrome and with reference to air quality monitoring programs undertaken by the EPA and local authorities. The area of the proposed development is categorised as Zone A in terms of air quality monitoring.

8.10.2. In the immediate vicinity of the site are residential properties the locations of which is shown in figure 10.2. Based on the IAQM criteria the sensitivity of the area to dust soiling impacts is described as medium and the sensitivity to human health impacts is low.

Potential impacts

8.10.3. There is potential for significant air quality impacts related to dust in the construction phase. The potential dust emission from the main activities namely demolition, earthworks, vehicle track out in general construction activities is described. In summary the dust emission risk related to earthworks is considered to be low and otherwise the dust emission risk can reasonably be determined as negligible.

8.10.4. Construction vehicles generators and other machinery may give rise to greenhouse gas emissions during the construction phase. Based on relevant guidance it is determined that site traffic and plant is unlikely to make a significant climate impact.

8.10.5. During the operation phase traffic accessing the site for maintenance purposes has the potential to act on air quality and climate. However, in view of the traffic volumes and having regard to the UK DMRB screening criteria there is no requirement for a detailed air and climate assessment. The operational phase air quality impacts will not be of magnitude to cause significant impacts.

Mitigation

8.10.6. The construction phase air quality and climate impacts will be mitigated by a range of measures including:

- Preparation and implementation of a detailed Construction Environmental Management Plan which will set out the overarching vision of how the contractor will manage the site activities in a safe and organised manner.
- Good site management including suitable siting of activities and storage piles, suitable response to adverse weather conditions, community engagement and maintenance of complaints register.
- Implementation of specific dust control measures for the demolition phase minimising the use of cutting and grinding equipment and use where necessary of dust suppression techniques.
- Appropriate measures including speed restrictions and use of browsers and maintenance of hard surfaces will minimise effects related to movement of construction trucks. A wheel wash will be installed at the main entrance.
- Earth movement and land clearance will be undertaken in a manner which minimises dust. Storage piles will be protected from exposure to winds and sited downwind of sensitive receptors.

Residual impacts

8.10.7. Subject to implementation of the dust mitigation measures I consider it may be concluded that the residual impacts on air quality will be short-term and imperceptible. The impacts on climate would be imperceptible and short-term.

Adherence to the air quality legislative limits will ensure that the impact of construction on human health is short-term and imperceptible.

8.10.8. The above conclusion is in line with the report of the Health Service Executive and the conclusion that there are no risks to air quality and climate and that the implementation of mitigation measures outlined will ensure that any effects are negligible and imperceptible.

Cumulative impacts

8.10.9. If the construction of the three projects on site coincides there is potential for cumulative effects including a low risk of dust soiling impacts. It is concluded that such effects would not extend beyond 350 m and would be short-term and imperceptible. I consider that this conclusion is reasonable having regard to the mitigation measures set out in this application and under the permissions granted for the PGF and ICT facility. As the contribution of the proposed development to greenhouse gases and climate effects is negligible and imperceptible there is no significant likelihood of cumulative climate effects. It is noted in the EIAR that the indirect CO_2 emissions associated with the electricity to operate the ICT development were assessed under a separate permission.

Conclusion

8.10.10. I have taken into account the contents of the EIAR, the totality of the application documents and the submissions on file. On that basis I am satisfied that potential effects on air quality and climate would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions.

8.10.11. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on air quality and climate.

8.10.12. I conclude that following mitigation there would be no significant effects on Air and Climate.

8.11. Noise and vibration

8.11.1. The assessment of noise and vibration considers BS 5228 and BS 7385 which are relevant to construction phase noise and vibration and BS 4142 and EPA Guidance

NG4 which are relevant to assessment of operational phase noise impacts on residential properties. There is no requirement for an EPA licence at the site but there will be a requirement at the PGF for an IED licence.

8.11.2. The adopted construction noise criteria during daytime, evening and night are 70 $dBL_{Aeq,1hour}$, 60 $dBL_{Aeq,1hour}$ and on Saturdays (08:00 to 13:00 hours) 65 $dBL_{Aeq,1hour}$. The proposed construction hours are 07:00 to 18:00 hours Monday to Friday and 08:00 to 14:00 and Saturdays. Weekend or evening working may be required from time to time on a significantly reduced basis, involving internal activities and concrete pouring.

8.11.3. The adopted construction vibration limit values are 8mm/s (less than 10 Hz), 12.5 mm/s (10 to 50 Hz), 20 mm/s (50 to 100 Hz and above).

8.11.4. The design criteria for noise in the operation phase is set at 45 $dBL_{Aeq,15min}$ during daytime and evening periods and 37 $dBL_{Aeq,15min}$ during night-time at the façade of nearby residential properties. This criterion is considered to be approximately equivalent to the lower existing background noise levels measured during night-time periods at nearby residential properties. To allow for emergency scenarios and for generator testing higher levels of 50 and 55 $dBL_{Aeq,T}$ are set.

8.11.5. The modelling undertaken assesses the three facilities proposed at the overall site and normal operation daytime and evening, normal operation night-time, emergency and generator testing.

Existing Environment

8.11.6. Baseline noise monitoring was undertaken at the dwellinghouses which are in the immediate vicinity site at the Peamount Road frontage. The survey results presented are reported in table 9.25. The average ambient noise levels were 64, 62 and 59 $dBL_{Aeq,15min}$ at one house and 52, 52 and 47 $dBL_{Aeq,15min}$ at the other.

8.11.7. The average background noise levels were 47, 45 and 38 $dBL_{A90,15min}$ at one house and 46, 45 and 38 $dBL_{A90,15min}$ at the other.

8.11.8. Road traffic noise were the most significant sources of noise.

Potential Impacts

8.11.9. The potential construction phase impacts on nearby noise sensitive properties due to noise emissions will arise from site traffic and other activities. The duration of the

construction phase is stated to be approximately two years. In general, the construction will be during daytime working hours. Where works along the cable route occur close to residential properties noise from these activities will be the dominant source of noise.

8.11.10. Taking into account the typical distance from works to noise sensitive locations the day and evening criteria can be satisfied. This conclusion is drawn based on necessary assumptions of indicative noise levels from construction plant and also on the assumption that standard good practice measures for control of noise will be implemented.

8.11.11. The main operational noise source would be the transformers. Evidence presented from real-life monitoring is that noise levels from this source would be less than 40 dBA at 5m from the boundary of the substation. On that basis the absolute operational noise from this source would not be significant.

8.11.12. The potential for vibration at neighbouring sensitive locations is limited to the excavation works and lorry movements but due to distances from sensitive locations there is considered to be little likelihood of structural or cosmetic damage.

Mitigation

8.11.13. Specific construction phase measures will be undertaken to comply with the relevant recommendations of BS 5228 – 1. These will include limits on the hours of working for activities likely to create high levels of noise or vibration, communication, appointment of the site representative for noise and vibration matters, monitoring noise and/or vibration during critical periods and at critical sensitive locations and measures with respect to keeping site access roads even in order to mitigate potential for vibration from lorries. Other measures which are set out would include selection of appropriate plant, erection of barriers and situation of noisy plant away from sensitive properties. Adherence to the vibration criteria set out is recommended. Finally, an indicative Construction Noise and Vibration Management Plan is presented in Appendix 9.5 and this will be implemented in terms of the day-to-day operation of the site.

8.11.14. With respect to the operational phase the submission is that no noise or vibration measures are required. This statement relies on the detailed design process resulting in a development which operates within the best practice guidance

noise limits which have been adopted. I have earlier discussed the recommendation of HSE which includes a recommendation that further operational noise monitoring be undertaken. I do not recommend that this be adopted as a condition for the reasons previously set out.

Residual Impacts

8.11.15. In the early phase of construction, the assessment is that the resultant noise impacts will be moderate, negative and short-term in nature and as construction proceeds the construction noise impact will reduce to not significant.

8.11.16. In the operation phase the adopted noise criteria are predicted to be met. On that basis I would agree with the applicant that no further mitigation is warranted.

Cumulative

8.11.17. As noted above the predicted noise levels associated with the proposed development would be imperceptible as the relevant adopted criteria can be met. On that basis it must be concluded that the proposed development will have no effect on the cumulative overall noise levels. The information provided in the EIAR includes cumulative noise assessment predictions for different scenarios, all of which meet the adopted noise criteria.

Conclusion

8.11.18. I have taken into account the contents of the EIAR and the submissions on file and on that basis, I am satisfied that potential effects on noise and vibration would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions.

8.11.19. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative noise and vibration effects.

8.11.20. I conclude that following mitigation the significant effects on Noise and Vibration are as described below. This overlaps with and is essentially included in my conclusion with respect to population and human health.

8.11.21. Temporary noise effects on nearby residential properties during the early phase of construction of the overall site and during the cable laying works.

8.12. Archaeology, Architectural and Cultural Heritage

8.12.1. These environmental topics are assessed in Chapter 13 of the EIAR. The baseline assessment was compiled with reference to a range of recognised data sources including the RMP, previous investigations and the National Inventory of Architectural Heritage (NIAH). A geophysical survey was undertaken of the main site but it did not extend to the cable route.

Existing Environment

8.12.2. There are no recorded archaeological monuments within the proposed development site. The geophysical survey results reveal anomalies which may be of potential archaeological interest including poorly defined curvilinear anomalies and probable pit/post hole concentrations which may form part of levelled enclosures or structure.

8.12.3. The NIAH lists three structures near the site, two of which are located adjacent the route of the proposed development along the R120 but will not be directly impacted. The EIAR does not reference the structure identified on the NIAH under No. 11208015, which is located close to the south eastern boundary of the proposed development and is described as a farmhouse dating between 1750 and 1770.

8.12.4. No structures included in the RPS are located within the site. It is known that the Griffeen River was associated with milling activity in past centuries.

Potential Impacts

8.12.5. There is potential that ground works associated with the proposed development will negatively impact subsurface archaeological features which may survive within the site and along the cable route.

8.12.6. There will be no direct impacts on buildings of architectural heritage interest. The EIAR identifies the two structures in the NIAH which are located to the south of the R120. If it remains in place there is potential for indirect impact on the farmhouse listed on the NIAH under No. 11208015. I was not aware of this listing at the time of inspection and did not notice the building. However, I am satisfied taking into account the site layout and nature of the development that the proposed development would not give rise to any potential impacts other than those associated with the ICT facility.

8.12.7. Due to the deployment of directional drilling in the Griffeen river crossing, there will be no impact on any remains which may be associated with historic industrial activity.

Mitigation

8.12.8. It is reported in the EIAR that there is a high possibility that previously unrecorded material or finds may be encountered during ground disturbance. A programme of archaeological investigations within the main site area will be undertaken under licence and in conjunction with National Monuments Service.

8.12.9. There are no other requirements for remedial or reductive measures.

Residual Impacts

8.12.10. The applicant concludes that with the implementation of archaeological mitigation measures there will be no significant residual effects on archaeological, architectural and cultural heritage. The nature of impacts on archaeology are described as neutral and not significant having regard to the fact that knowledge would be gained by excavation and reporting of any features uncovered. I agree with this conclusion which is in line with standard assessment of impacts on archaeological sites.

Cumulative

8.12.11. There would not be any likelihood of cumulative effects according to the EIAR. I consider that this conclusion is reasonable and furthermore I note the significant overlap between the proposed development and permitted development.

Conclusion

8.12.12. I have taken into account the contents of the EIAR and the submissions on file and on that basis, I am satisfied that potential effects on archaeological, architectural and cultural heritage would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions.

8.12.13. I am satisfied that the proposed development would not have any unacceptable direct, indirect, cumulative or transboundary effects on archaeological, architectural and cultural heritage. I do not consider that any effects would be significant.

8.13. Landscape and Visual

8.13.1. The Landscape and Visual Assessment (LVIA) is presented in Chapter 11 and based on relevant guidance which is recorded.

8.13.2. I refer to the revisions which were secured by SDCC during the consideration of the application for the ICT facility and which I have recommended should be subject of a condition.

Existing Environment

8.13.3. In terms of the context for this topic it is relevant to note both the different character of the main site and the cable site as well as the location of the overall site in a rapidly emerging landscape context and the permitted development at either side of the proposed substation.

8.13.4. The main site comprises agricultural lands and two dwellinghouses and associated outbuildings. The linear route follows the regional road before traversing eastwards along a disused road, crossing under the Griffeen river and Baldonnel Road and emerging adjacent a new datacentre.

8.13.5. In terms of the existing environment and surveys undertaken I refer to the Tree Survey Report by Tree File Ltd and the associated drawings which are in Appendix 11.4. The review and summary identify no trees of vegetational interest. There is a relic of an agricultural field boundary in the northern part of the site and at the dwellinghouses to the south within the curtilage of the dwellinghouses are trees which are of ornamental value. Some of these are located near the roadside boundary and are visually significant notably a Poplar, which is close to the proposed entrance and large Monterary Cypresses.

8.13.6. Elements of the permitted ICT development and the PGF will have significant visual effects on the proposed substation within the overall site. These are large buildings of industrial character which are depicted in the application drawings and assessed in the EIAR.

8.13.7. The site is visible in particular from the south and also from the north along the regional road.

8.13.8. There are no protected views or prospects, trees or tree groups of relevance. The development plan characterises the landscape sensitivity of the site as medium.

Potential Impacts

8.13.9. The construction phase effects may be described as follows:

- A change of use to a construction site involving visual impacts due to the introduction of new structures and associated earthworks.
- A change of character related to the change in use.
- Visual impacts due to the removal of trees and as a result of changes in ground level, earthworks and stockpiling.
- In summary these would be predicted to have negative moderate and short-term landscape and visual impacts.

8.13.10. The operational phase effects may be described as follows:

- Visual impacts due to the introduction of the substation building, roads plant and lighting and landscaping proposals comprising significant levels of earth modelling and tree planting.
- A change in character due to the change in use, which is in line with the developing industrial landscape in the area, is buffered at either side by permitted developments and would therefore be considered to result in neutral, short-term and slight impacts.

Mitigation

8.13.11. The mitigation measures include the landscape design involving earth modelling and large tree planting reinforced with woodland planting which is been designed to provide a high level of visual screening. Allied to this is the retention of a number of existing trees and hedgerows belts.

8.13.12. The landscape plan elements are shared by the permitted ICT development. As revised by the further information submitted under reg. ref. SD20A/0324 the permitted development constitutes an improvement on the measures proposed at the main site and is recommended to be implemented by condition.

8.13.13. **Residual Impacts**

8.13.14. The residual impacts are presented in the EIAR in the context of the permitted developments at either side, which I consider is appropriate. The main method of

assessment is the presentation of photomontages and associated descriptive text, both of which examine the cumulative effects.

Cumulative

8.13.15. The visual impact assessment presented addresses the cumulative effects. Having inspected the site I am satisfied that the photomontages are taken from representative areas and are adequate. On this basis the applicant concludes that the cumulative impacts would be neutral, short-term and not significant. This conclusion is generally reasonable having regard to the extent of earth mounding and planting which is proposed at the site boundaries and particularly at locations which will screen the views from the regional road and in the context of the permitted development. The permitted ICT development would give rise to significant long-term visual effects and no additional visual effects would result from this development.

Conclusion

8.13.16. I have taken into account the contents of the EIAR and the submissions on file and on that basis, I am satisfied that potential landscape and visual effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions.

8.13.17. I am satisfied that the proposed development would not have any significant direct, indirect or cumulative landscape and visual effects. While the proposed development would result in significant landscape change and associated visual effects, these are in line with emerging trends in the area and have to be considered in the context of the permitted developments. There would be adverse short-term landscape and visual impacts in the construction phase but there are few residents in the area and no protected landscapes, views or structures would be significantly affected.

8.14. Traffic and transportation

8.14.1. The assessment of traffic and transportation is reported in Chapter 12 of the EIAR. I assess the relevant effects below having regard to the applicant's submission, the submissions and my findings following site inspection.

Existing Environment

8.14.2. In terms of the wider context, the site lies within a few kilometres of the M50, the M4 and N7 and the R136 Outer Ring Road linking Tallaght to Lucan. In the immediate area at the site boundary is Peamount Road R120 which extends in a south-west to north-east alignment between Main Street Newcastle and Nangor Road R134. Nangor Road R134 extends in a west east alignment and part of it has been recently upgraded to include combined footway and cycle parts. The road frontage at the overall site comprises a 6 m wide two-lane route. In contrast, the road network in the area to the north-east has recently been subject of significant infrastructural improvement works.

8.14.3. The assessment of traffic levels is based on a survey undertaken on Tuesday, 1 October 2019 which established that the typical weekday peaks on Peamount Road are 08:00 – 09:00 and 17:00 – 18:00. Derived estimated traffic volumes for the present day and for completion of works suggest flows in the order of 1000 PCUs at nearby junctions.

8.14.4. Bus services in the immediate area run to an hourly frequency and routes with better frequency are over 1.2 km from the site. The Adamstown rail station is 3.4 km from the site. While there is no footway available at the site frontage one commences at the north-east corner of the site and in the wider area there are high quality footpaths and cycleways. Some minor accidents have been recorded along Peamount Road near the site, prior to the recent upgrades.

Potential Impacts

8.14.5. On the assumption of construction commencing in Q4 2021 and taking 20 months it is assumed that the proposed development will be built in parallel with the delivery of the PGF and ICT facilities. The hours of construction will be between 07:00 and 19:00 Monday to Friday and 09:00 and 13:00 on Saturday. Construction traffic estimates and impacts take into account the requirement for a staged closure of the northbound lane of Peamount Road. The 300m on road section will be constructed in 3 no. 100m sections. There will be a requirement for further staged closures of both the north and southbound lanes of this road to accommodate underground cable crossings at the Old Nangor Road junction. The construction personnel will be 30 staff and peak HGVs accessing the site is estimated at 10 entering and 10 leaving

on a daily basis. It is conservatively assumed that 50% of construction personnel will arrive and depart during the peak periods and that there will be HGVs entering and exiting the site in those periods also. The cumulative construction phase taking into account the PGF and ICT facilities is presented in table 12.6. The estimate is that the substation cable connection will give rise to 100 daily vehicle trips and the other two facilities will give rise to a combined figure of 190 daily vehicle trips.

8.14.6. The level of traffic increase on the junction of the site entrance and Peamount Road (combined substation, PGF and ICT facility) may exceed the 10% increase which would be deemed to be material under the TII guidance. However, taking into account the site working hours and the assumptions set out the level of impact at this junction is reduced to 6% during the AM peak and 8.2% during the PM peak. It is also noted that the estimated 109 turning vehicle movements at this junction during the peak hours equates to an average of 1.8 additional vehicle movements per minute during the peak hour periods, which is minimal in traffic engineering terms.

8.14.7. For the operation phase the applicant refers to the PICADY assessment undertaken under application SD20 A/0324 which determined that the junction would operate at a level of service A and RFC of 0.12 to 2038.

8.14.8. Based on the above information which I consider is robust, I agree with the conclusion presented that the construction related traffic assessing the site will have a minimum impact on traffic flows and Peamount Road. There will be short-term adverse impacts as a result of partial lane closures to facilitate installation of the underground transmission lines and this will impact on flows on Peamount Road.

8.14.9. The assessment also considers the traffic impacts on the junction of Peamount and Nangor roads, at which location a percentage increase in the order 5% is predicted for the peak periods. This is significantly below the TII guidelines recommendation for detailed assessment and would not be considered to be significant.

Mitigation

8.14.10. The significant construction phase traffic mitigation measures include preparation and implementation of a detailed Construction Traffic Management Plan. This will have regard to safety and operational impact on construction traffic and will address routes to the site, working hours, timing of vehicle movements and deliveries, loading and parking arrangements and details of lane closures.

8.14.11. Other mitigation measures which will be implemented relate to regular cleaning of the main access road, provision of parking facilities for construction workers and monitoring and control of traffic including avoidance of peak hours.

8.14.12. As it has been determined that the long-term potential traffic impact is neutral and imperceptible and that the expected traffic flows are significantly below the TII thresholds for detailed assessment, no further mitigation measures are set out by the applicant. I consider that this is reasonable.

Residual Impacts

8.14.13. There will be no long-term significant residual impacts.

8.14.14. There will be short-term negative and not significant impacts particularly for the short duration of cable laying.

Cumulative

8.14.15. The traffic and transportation data includes the construction phase for the overall site.

Conclusion

8.14.16. I have taken into account the contents of the EIAR and the submissions on file and on that basis, I am satisfied that potential effects on traffic and transportation would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions.

8.14.17. I am satisfied that the proposed development would not have any unacceptable direct, indirect, cumulative or transboundary effects on traffic and transportation.

8.14.18. I conclude that following mitigation the effects on traffic and transportation would not be described as significant.

8.15. Material Assets

8.15.1. In this section I address waste management and the wider topic of material assets including power and electricity supply, surface water infrastructure, foul drainage infrastructure and water supply. Other relevant topics including with respect to land,

roads and traffic are considered above. I comment also on the potential for impact on Casement Aerodrome.

Existing Environment

8.15.2. The assessment presented in Chapter 14 of the baseline environment in relation to waste management includes a review of the legislative context, the volumes of material involved and the types of material. I have earlier presented data with respect to soils and geology which is relevant also to the topic of waste. The demolition of two houses Bulmer and Little Acre and their associated buildings will be undertaken, and the waste generated in terms of estimated off-site materials in the amount of 857 tonnes is involved. The classification of wastes arising, and the management of that waste will accord with relevant regulations. Other than demolition and excavated material there will be negligible waste generated in the construction phase. As stated earlier the excavated material along the grid connection is unlikely to be suitable for reuse. Operational phase waste generated with be limited.

8.15.3. The infrastructure requirements to serve the proposed development will include power and electricity supply, fibre-optic cable distribution network. Surface water infrastructure will include on-site attenuation with discharge to an existing public surface water network. Limited amount of foul drainage infrastructure will be required for the construction and operation phases. Similarly, water supply impacts will not be significant.

8.15.4. The route of the grid connection diverts from road verges in places. SDCC has raised concerns that this may impact on future development lands and that it should be demonstrated that the optimum alternative is proposed. I have considered this matter earlier and concluded that the selected route is a reasonable option, and that due consideration has been given to alternatives.

8.15.5. The site is within the notifiable area for Casement Aerodrome.

Potential Impacts

8.15.6. The provision and operation of services and infrastructure in accordance with the requirements of ESB networks, Irish Water and other infrastructure providers together with the limited demand for services in the construction phase will ensure that there would be limited potential effects relating to material assets.

8.15.7. I do not agree with the conclusion presented in the EIAR that there are no potential impacts associated with power and electrical supply for the proposed development in the operational phase. Once commissioned the proposed development will facilitate the export of power from the PGF to the National Grid and also will have the capacity to supply power to the permitted ICT facility. The applicant advises that ESB network requirements have been adhered to in the design and that Eirgrid has confirmed that there is sufficient capacity to export power under licence into the grid as proposed. I consider therefore that it should be concluded that the proposed development will have significant long-term positive effects by providing for security and continuity of electricity supply in the region as well as facilitating the operation of the PGF.

8.15.8. The proposed grid connection by reason of the need for way leaves would have negative long-term effects in terms of development of lands, which I consider are not significant due to the route alignment selected.

8.15.9. There is potential for significant adverse effects on the operation of Casement Aerodrome for the duration of construction related to the siting of cranes. There is also potential for operation phase impacts related to the surface water ponds.

Mitigation

8.15.10. The mitigation measures relating to wastes include the preparation and implementation of a project specific Construction and Demolition Construction Waste Management Plan, included as Appendix 14.1. This document may be refined once the contractor has completed the detailed CEMP. Other waste mitigation measures include reuse of material where possible and suitable separation and classification commitments to ensure removal, reuse, recycling, recovery and disposal in accordance with the Waste Management Act 1996 and other regulations.

8.15.11. On-site segregation and suitable storage of waste are amongst the standard type of mitigation measure described in the EIAR to govern the operational phase.

8.15.12. Construction phase mitigation measures to ensure protection of services and utilities will include ongoing consultation with utility providers and compliance with any requirements or guidelines they may have. The excavation of trenches for the grid connection within the vicinity of existing electrical services will be undertaken in consultation with ESB Networks to ensure no impact on existing users. No remedial or mitigation measures are required in relation to telecommunications which will be

extended from the PGF within the overall lands. There is no requirement for mitigation works relating to water services infrastructure arising from the construction phase.

8.15.13. There is no possible mitigation with respect to the issue of wayleaves and impacts on development land.

8.15.14. There is no requirement for mitigation measures relating to power and electricity supply, telecommunications, water and foul drainage and water supply in the operational phase. I consider that this conclusion may be drawn subject to the future validation by SDCC of the arrangements for surface water attenuation within the site.

8.15.15. I propose to address the construction and operation phase potential impacts on Casement Aerodrome by condition.

Residual Impacts

8.15.16. It is considered that the residual effects of construction and operational waste are neutral and imperceptible.

8.15.17. It is considered that there are no significant residual effects on telecommunications, water supply or the sewer and drainage infrastructure or Casement Aerodrome. There would be significant long-term positive residual effects on the electricity supply in the area. There would be permanent loss of agricultural lands and property but as these are in line with the zoning objective, I would not consider that these impacts would be described as significant residual impacts.

8.15.18. The proposed development will result in long-term not significant negative effects on activities and development within the cable wayleave.

Cumulative

8.15.19. In the construction and decommissioning phases, the scale of the project will be very small relative to the scale of the region's construction industry and waste infrastructure. Cumulative construction and demolition impact from the three projects in the overall lands would not be anticipated to be significant in the context of the industry in the region. In addition, the land take which is devoted to the proposed development and the adjacent permitted development is not significant in the context of the very large area in the immediate vicinity which is zoned for a similar purpose.

8.15.20. Apart from the significant positive impact from the support for the permitted PGF and the associated substation and transmission infrastructure proposed, the potential cumulative effects of the three projects on services and utilities would not be expected to be significant.

Conclusion

8.15.21. I have taken into account the contents of the EIAR, the totality of the application documents and the submissions on file. On that basis I am satisfied that potential effects on material assets would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions.

8.15.22. I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on material assets.

8.15.23. There would be a significant positive long-term benefit on material assets and consequently on the local economy and employment through the strengthening of the electricity grid in the area.

8.16. Interactions and Cumulative Impacts

8.16.1. Chapter 16 of the EIAR addresses this topic.

8.16.2. There has been an assessment of interactions, as well as cumulative impacts related particularly to the PGF and ICT facility, under each environmental topic considered.

8.16.3. There are no likely significant interactions between population and human health and any of the other environmental topics.

8.16.4. The interactions between the loss of agricultural land and population and human health are considered to be negligible due to the overlap between the proposed development and the permitted ICT facility. There is no other significant loss of agricultural land and therefore no significant interactions between these topics.

8.16.5. There are interactions between soils and geology and hydrology and air and climate related to the construction phase. Potential impacts will be mitigated particularly by the implementation of a CEMP and will thereby reduced to short-term imperceptible effects.

8.16.6. As the agricultural land which is to be lost is not of significance for biodiversity and taking into account the mitigation landscaping proposed there will be no long-term interactions related to the loss of soil.

8.16.7. There are interactions in this case between land, soils, geology and hydrogeology, biodiversity and landscape and visual impacts as a result of the construction of the attenuation features. The effects will be long-term, imperceptible and neutral.

8.16.8. It may be concluded from consideration of the contents of the EIAR that the long-term residual indirect and interactive effects are not significant and are neutral in nature.

8.17. Major accidents and disasters.

8.17.1. Under the EIA Directive it is necessary to consider the vulnerability of projects to major accidents and/or natural disasters, the risk of those accidents and the consequences for the likelihood of significant adverse effects on the environment.

8.17.2. The applicant has discussed this topic in Chapter 5. The proposed development will not be a Seveso / COMAH facility and will not be located in the vicinity of any such facility.

8.17.3. On the specific topic of major accidents and/or natural disasters as well as unplanned events the site has been assessed to have negligible risk of landslide due to topography and soil profile and no risk of seismic or other similar natural disaster. The potential for flood risk which was assessed in the FRA undertaken concluded that the proposed development is not at risk of flooding and the permitted development has been designed to include control of surface water in a manner which will prevent no risks to adjacent land.

8.17.4. Based on the above it may be concluded that the proposed development is not vulnerable to major accident and/or natural disasters.

8.18. Reasoned Conclusion

8.18.1. Having regard to the assessment of environmental information above and the applicant submission is particularly in the form of an EIAR and the supporting documentation, the submission of the planning authority and prescribed bodies, it is

considered that the significant direct and indirect effects of the proposed development are as follows:

- Negative short-term construction phase impacts on population and human health due to noise and disturbance, which will be mitigated by a range of measures and through implementation of the CEMP.
- Positive long-term impacts on population and human health due to employment and economic benefit to the area.
- Potential adverse effects on biodiversity during the construction phase from removal of trees and structures which are habitats for bats and birds, which will be mitigated by suitable measures.
- Significant positive long-term effects on biodiversity from the strengthening of green infrastructure and the provision of new water bodies and extensive tree and woodland planting.
- Potential adverse impacts on water quality during the construction phase from silt, hydrocarbon or chemical runoff, which will be mitigated by the implementation of a Construction Environmental Management Plan and other measures.

9.0 Appropriate Assessment

9.1. Introduction, legal context and proposed development

Introduction

9.1.1. The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177U and 177V of the Planning and Development Act 2000 (as amended) are considered fully in this section. The areas addressed in this section are as follows:

- Compliance with Article 6(3) of the EU Habitats Directive.
- Screening the need for appropriate assessment.
- The Natura Impact Statement and associated documents.

- Appropriate assessment of implications of the proposed development on the integrity of each European site.

Compliance with Article 6(3) of the EU Habitats Directive

9.1.2. The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given.

9.1.3. The proposed development is not directly connected to or necessary to the management of any European site and therefore is subject to the provisions of Article 6(3).

9.1.4. I consider that the information available constitutes the best available scientific information and is sufficient to allow the Board to carry out screening for appropriate assessment.

9.2. Description of the proposed development

9.3. The proposed development comprises

- a new 110 kV Gas Insulated Switchgear (GIS) Substation
- 3 no. transformer bays
- a Client Control Building
- associated compounds and site infrastructure
- 2no. underground single circuit 110kV transmission lines to connect to grid 940m to the east
- ancillary and associated works including significant earth mounding, creation of two surface water features and extensive planting.

9.4. Appropriate Assessment- Screening

Introduction

9.4.1. The requirements of Article 6(3) as related to screening the need for appropriate assessment of a project under part XAB, section 177U of the Planning and Development Act 2000 (as amended) are considered fully in this section.

9.4.2. Stage 1 of the appropriate assessment process is the screening stage whereby it is determined whether the project is likely to have a significant effect, either individually or in combination with other plans and projects on European sites in view of the sites' conservation objectives.

9.4.3. The applicant has submitted a report entitled *Appropriate Assessment Screening Report for Proposed Strategic Infrastructure Development (Proposed Electricity Transmission Development) at Grange Castle West, Milltown, Co Dublin*. The report was prepared by Scott Cawley and issued on 18 March 2021.

9.4.4. The Screening Report describes the methodology for the screening undertaken which is based on relevant guidance and informed by information relating to the proposed development, the receiving environment, suitable review of desktop information and baseline surveys and an assessment of the effects on European sites.

9.4.5. The report is accompanied by Appendix I which sets out the qualifying interests and special conservation interests of European sites in the vicinity of the proposed development. Appendix 2 sets out relevant planning policies and objectives relating to the protection of European sites and water quality.

9.4.6. The screening assessment determines that there is no potential for the development to have an adverse effect on European sites and is based on potential impact pathways. It is clarified that no mitigation was considered in reaching this conclusion.

9.4.7. Having reviewed the documents and submissions I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone, or in combination with other plans and projects on European sites.

Screening for Appropriate Assessment- Test of likely significant effects

9.4.8. The project is not directly connected with or necessary to the management of a European Site and therefore it needs to be determined if the development is likely to have significant effects on European sites.

Submissions and Observations

9.4.9. The submission of the Development Applications Unit has been summarised above. I consider that only one aspect of this submission is relevant to appropriate assessment:

- The proposals for direct drilling are satisfactory. The measures to be adopted will avoid pollution and should avoid detrimental impacts on the watercourse, it's riparian zone and associated biota.

9.4.10. SDCC noted that An Bord Pleanála is the competent authority for the purposes of appropriate assessment.

9.4.11. No other observations or submissions raised issues relevant to appropriate assessment.

European sites with potential pathways to proposed development

9.4.12. The development site is not within or immediately adjacent to any European site.

9.4.13. There are no Annex I habitats for which European sites listed in Appendix 1 have been designated and a search of the relevant databases did not record any protected and/or rare plants within 2 km of the proposed site. The field surveys undertaken, and the databases referenced did not return records of non-native invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulation 2011 as amended. The bat species identified in surveys did not include any species which are listed as qualifying interests of any European site in Ireland. The Griffeen River would provide suitable habitat for otter. No signs of otter were identified in field surveys. No records of Annex I bird species were returned following a review of records and no winter birds of interest were recorded using the grassland habitat within the proposed development site and species recorded during ad hoc observations are common suburban species.

9.4.14. There are hydrological pathways to the European sites in Table 1.

Name and Code	Location	Potential pathway
South Dublin Bay SAC [000210]	16.3 km east of the proposed development site (PDS).	Hydrological connection as the proposed development site is within the Liffey and Dublin Bay catchment and the Liffey sub catchment and the Griffeen River is partially within the site boundary out falling ultimately to the Liffey Estuary and to Dublin Bay 27km downstream.
North Dublin Bay SAC [000206]	19 km north east of PDS	As above.
South Dublin Bay and River Tolka Estuary SPA [004024]	15.8 km north-east of PDS	As above.
North Bull Island SPA [004006]	19 km north-east of PDS	As above.

Table 1: European sites with pathways to PDS

9.4.15. There are no hydrological pathways to the European sites in Table 2, but other pathways or ecological connections cannot be excluded and are considered in more detail in the next section.

Name and Code	Location	Potential pathway
Rye Water Valley / Carton SAC [001398]	4.9 km north-east of PDS	There are no hydrological pathways, but other connectivity cannot be excluded.
Glenasmole Valley SAC [001209]	8.9 km south-east of PDS	As above.
Wicklow Mountains SAC [002122]	10.5 km south-east of PDS	As above.

Red Bog, Kildare SAC [000397]	14.2 km south-west of PDS	As above.
Wicklow Mountains SPA [004040]	13.8 km south-east of PDS	As above.
Poulaphouca Reservoir SPA [004063]	15.3 km south of PDS	As above.

Table 2: European sites without hydrological pathways to PDS – other ecological connectivity / pathways cannot be excluded

9.5. Identification of Likely Effects

9.5.1. Taking account of the characteristics of the proposed development in terms of its location and the scale of works, the following impact pathways are identified in the Screening Report and considered for examination in terms of implications for possible significant effects on European sites:

- Habitat loss and fragmentation.
- Habitat degradation due to hydrological impacts.
- Habitat degradation as a result of hydrogeological impacts.
- Habitat degradation as a result of the introduction or spreading of non-native invasive species.
- Disturbance and displacement impacts.
- Habitat degradation as a result of contaminated land.
- Habitat degradation as a result of air pollution impacts.

9.5.2. The proposed development will not result in **habitat loss or fragmentation** as it does not directly impact or traverse any European sites. The grassland habitat would be suitable to support wader and gull species for which European sites are designated. No sightings of SCI birds species were recorded during dedicated winter

bird surveys which were undertaken as part of the application for the PGF or in any follow-up ecological surveys including those undertaken in February 2021.

9.5.3. The development will not result in **habitat degradation as a result of hydrological impacts**. The proposed development including a linear route and directional drilling under the river will not result in any measurable effects on water quality in Dublin Bay due to the substantial distance, the low-volume of surface water run-off discharge and the level of mixing and dispersion. The development in the operational phase will give rise to very low levels of foul water discharge which can be accommodated within the existing wastewater treatment plant facilities and would equate to a very small percentage of overall discharge volumes. It therefore may be concluded that the proposed development will not impact on the overall water quality status of the bay, which is presently unpolluted.

9.5.4. Regarding the potential for in combination effects there will be requirements under prevailing plans and development plan policies that the protection of European sites and water quality is ensured. The proposed development will not result in any measurable effect on water quality and having regard to the policies and objectives of the development plans the possibility of other plans are projects acting in combination with the proposed development to give rise to significant effects on any European site in or associated with Dublin Bay can be excluded.

9.5.5. I agree with the conclusion presented in the Screening Report that there is no possibility that the proposed development will undermine the conservation objectives of any of the qualifying interests are special conservation interests of the European sites which are hydrologically connected to the proposed development.

The Screening Report assesses the potential for **habitat degradation as a result of hydrogeological impacts**. The proposed development will not interact directly with the underlying groundwater body. Furthermore, it is down gradient of and almost 5 km from the Rye Water Valley / Carton SAC which is designated for groundwater dependent species. The proposed development would not undermine the conservation objectives of that European site or other sites, either alone or in combination with other plans or projects as a result of hydrogeological effects.

The **introduction or spread of non-native invasive species** could give rise to habitat degradation. No invasive species were recorded within the proposed

development site. Subject to compliance with legal provisions there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of any European sites, either alone or in combination with any other plans or projects as a result of introduction or spread of invasive species.

The proposed development which is likely to be constructed at the same time as the permitted development at the overall site could give rise to **disturbance and displacement effects**. The Griffeen River would be suitable habitat for otter which is a qualifying interest of the Wicklow Mountains SAC and the grassland could support wader and gull species for which a number of the European sites are designated. No populations of qualifying interest or special conservation interest species associated with any of the European sites was found within or immediately adjacent to the proposed development site. On this basis it may be concluded that the proposed development would not undermine the conservation objectives of European sites, either alone or in combination with other plans or projects as a result of disturbance and displacement effects.

The proposed development could give rise to **habitat degradation as a result of contaminated land**. The site has been subject of suitable investigations which determined that there is no contamination across the site.

The proposed development could **give rise to habitat degradation as a result of air pollution impacts**. The most significant air quality impacts would occur in the construction phase and be related to dust which would settle out within a small zone from the construction works. There is no potential for impacts on air quality which would lead to habitat degradation effects at European sites. As there is no potential for impacts associated with the proposed development in combination effects can also be ruled out.

To conclude, I consider that there is sufficient information to demonstrate that the potential impacts associated with the proposed development would not affect the conservation objectives supporting the qualifying interests or special conservation interests of the following European sites or any other European site alone or in combination with other plans or projects:

- South Dublin Bay SAC [000210]

- North Dublin Bay SAC [000206]
- South Dublin Bay and River Tolka Estuary SPA [004024]
- North Bull Island SPA [004006]
- Rye Water Valley / Carton SAC [001398]
- Glenasmole Valley SAC [001209]
- Wicklow Mountains SAC [002122]
- Red Bog, Kildare SAC [000397]
- Wicklow Mountains SPA [004040]
- Poulaphouca Reservoir SPA [004063]

Mitigation measures

9.5.6. No measures designed or intended to avoid or reduce any harmful effects of the project on a European Site have been relied upon in this screening exercise.

Screening Determination

9.5.7. The proposed development was considered in light of the requirements of 177U of the Planning and Development Act 2000 as amended. Having carried out screening for appropriate assessment of the project, it has been concluded that the project individually (or in combination with other plans or projects) could not have a significant effect on European Sites No. 000210, 000206, 004024, 004006, 001398, 001209, 002122, 000397, 004040, 004063, or any other European site in view of the sites' conservation objectives, and appropriate assessment is not therefore required.

10.0 Recommendation

I recommend that permission be granted subject to the conditions and for the reasons and considerations below.

11.0 Reasons and Considerations

In coming to its decision, the Board had regard to:

European legislation and policy including of particular relevance:

- Directive 2014/52/EU amending Directive 2011/92/EU (EIA Directive) on the assessment of the effects of certain public and private projects on the environment.
- Directive 92/43/EEC (Habitats Directive) and Directive 79/409/EEC as amended by 2009/147/EC (Birds Directives) which set the requirements for Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union.

National legislation including of particular relevance:

- Section 182A of the Planning and Development Act 2000 (as amended).

Regional policy provisions including of particular relevance:

- Regional Spatial and Economic Strategy for the Eastern and Midlands Region.

Local policy provisions including of particular relevance:

- The South County Development Plan 2016 – 2022.

The following matters:

(a) The location of the site in an emerging industrial area and within a large bank of land zoned for enterprise and employment uses.

(b) The significant benefits in terms of reinforcing the electricity transmission grid in an area where there are capacity constraints.

(c) The purpose of the development to provide for the export of power from the permitted Power Generation facility and to provide a permanent power supply for the permitted Information Communication Technology facility at the adjacent lands and the information submitted in connection with the applications for said developments.

(d) The alternatives considered and the rationale for connecting to the national grid at the selected location.

(e) The nature and scale and design of the proposed development.

(f) The submissions and observations made to An Bord Pleanála in connection with the application.

(g) The range of proposed mitigation measures set out in the submitted in the documentation lodged including the Environmental Impact Assessment Report and the Appropriate Assessment Screening Report.

(h) The report and recommendation of the Inspector.

Proper Planning and Sustainable Development

It is considered that subject to compliance with the conditions set out below, the proposed development would accord with European, national, regional and local planning and related policy, would not have an unacceptable impact on landscape or ecology, would not seriously injure the visual or residential amenities of the area or of property in the vicinity, and would be acceptable in terms of traffic safety and convenience. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

Environmental Impact Assessment

The Board completed an Environmental Impact Assessment of the proposed development taking into account:

- The nature, scale and extent of the proposed development.
- The Environmental Impact Assessment Report and associated documentation submitted in support of the application.
- The submissions made in the course of the application.
- The planning history including the further information submitted in relation to the application to South Dublin County Council under Reg. ref. SD 20A/0324.
- The Inspector's report.

The Board considered that the Environmental Impact Assessment Report, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development and identifies and describes adequately the direct, indirect, secondary and cumulative effects of the proposed development on the environment.

The Board agreed with the examination, set out in the Inspector's report, of the information contained in the Environmental Impact Assessment Report and

associated documentation submitted by the applicant and submissions made in the course of the application.

The Board considered, and agreed with the Inspector's reasoned conclusions, that the main significant direct and indirect effects of the proposed development on the environment are as follows:

> Negative short-term construction phase impacts on population and human health due to noise and disturbance, which will be mitigated by a range of measures and through implementation of the CEMP.
>
> Positive long-term impacts on population and human health due to employment and economic benefit to the area.
>
> Potential adverse effects on biodiversity during the construction phase from removal of trees and structures which are habitats for bats and birds, which will be mitigated by suitable measures.
>
> Significant positive long-term effects on biodiversity from the strengthening of green infrastructure and the provision of new water bodies and extensive tree and woodland planting.
>
> Potential adverse impacts on water quality during the construction phase from silt, hydrocarbon or chemical runoff, which will be mitigated by the implementation of a Construction Environmental Management Plan and other measures.

The Board is satisfied that this reasoned conclusion is up to date at the time of taking this decision.

Appropriate Assessment Screening

In conducting a screening exercise for appropriate assessment, the Board considered the nature, scale and context of the proposed development, the documentation on file, in particular the Appropriate Assessment Screening Report submitted in support of the proposed development, the submissions on file and the assessment of the Inspector in relation to the potential for significant effects on European Sites. In undertaking the screening exercise, the Board accepted the analysis and conclusions of the Inspector. The Board concluded that, by itself and in combination with other development in the vicinity, the proposed development would

not be likely to have significant effects on any European site in view of the sites' conservation objectives. In reaching this conclusion, the Board took no account of mitigation measures intended to avoid or reduce the potentially harmful effects of the project on any European Sites.

12.0 **Conditions**

1.	The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars. **Reason**: In the interest of clarity.
2.	The mitigation measures identified in the EIAR and other plans and particulars submitted with the planning application, shall be implemented in full by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this permission. **Reason:** In the interest of clarity and protection of the environment during the construction and operational phases of the proposed development.
3.	Save where otherwise agreed with the planning authority the developer shall comply with all relevant conditions of planning reg. ref. SD20A/0324. **Reason:** In the interest of clarity and consistency.
4.	Subject to the provisions of condition 5 below, water supply and drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works in respect of both the construction and operational phases of the proposed development.

	Prior to commencement of development, and following consultation with Irish Water, the developer shall agree with the planning authority proposals for all works as they affect water supply and drainage services, together with written commitment to undertake the proposed development in accordance with this agreement. **Reason:** In the interest of environmental protection and public health.
5.	The proposals for roads, parking and site landscaping including the detail of the surface water attenuation features shall subject of the written agreement of the planning authority and unless otherwise agreed with the planning authority shall be as follows: (a) The site layout including the roads and parking areas and landscape plans and details shall be in accordance with the plans and particulars received by the planning authority on 19 May 2021 under planning reg. ref. SD20A/0324. (b) The requirements of the planning authority in relation to the surface water management and disposal shall be complied with in full. Alterations to the volume of surface water attenuation features and modification to earthworks may be undertaken. (c) Revised sectional drawings 04 and 05 shall be submitted. **Reason:** To ensure consistency between the conditions of this permission and previously permitted development and in the interest of visual amenities, surface water attenuation and biodiversity.
6.	All planting shall be carried out within the first planting season following commencement of construction of the proposed development. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously damaged or diseased within two years of planting shall be replaced by trees or shrubs of similar size and species to those originally required to be planted. The landscaping and screening shall be maintained at regular intervals. All tree and shrub removal and the demolition of buildings shall be undertaken outside the bird nesting season.

	Reason: In the interest of orderly development and the protection of birds.
7.	An updated survey of the trees along the cable route shall be submitted to the planning authority and suitable measures presented to ensure the protection of bats along this route. The protection of bats shall be ensured through the implementation of the measures set out in the EIAR and the measures in the Bat Memo dated 7 May 2021 submitted as further information under planning reg. ref. SD20A/0324. **Reason: T**o ensure the protection of bats.
8.	The requirements of the planning authority in relation to roads and traffic under condition 4 of planning reg. ref. SD20A/0324 shall be adhered to in full. **Reason:** In the interest of orderly development, sustainable development and traffic safety.
9.	Prior to commencement of development, a detailed Construction Environmental Management Plan (CEMP) for the construction phase shall be submitted to and agreed in writing with the local authority, generally in accordance with the Outline CEMP included in the Environmental Impact Assessment Report. The CEMP shall incorporate the following: (a) a detailed plan for the construction phase incorporating, inter alia, the construction programme, supervisory measures, noise, dust and surface water management measures, including appointment of a site noise liaison officer, construction hours and the management, transport and disposal of construction waste, (b) a comprehensive programme for the implementation of all monitoring commitments made in the planning application and supporting documentation during the construction period, (c) an emergency response plan, and (d) proposals in relation to public information and communication.

	A record of daily checks that the works are being undertaken in accordance with the Construction Environmental Management Plan shall be kept for inspection by the local authority. **Reason:** In the interest of environmental protection and orderly development.
10.	The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the undertaker shall – (a) notify the local authority in writing at least four weeks prior to the commencement of any site operations (including hydrological and geotechnical investigations) relating to the proposed development, (b) employ a suitably qualified archaeologist who shall monitor all site investigations and other excavation works, and (c) provide arrangements, acceptable to the local authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove. In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination. **Reason:** In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.
11.	The construction of the development shall be managed in accordance with a Construction Management Plan, a Traffic Management Plan and a Waste Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. **Reason:** In the interest of orderly development and the protection of the environment.
12.	External finishes shall be agreed in writing with the planning authority. **Reason:** In the interest of visual amenity.

13.	Prior to commencement of development, the applicant shall agree in writing with the Planning Authority a public lighting and site lighting scheme for the proposed development. **Reason:** In the interest of orderly development.
14.	The applicant shall submit to the planning authority an Aviation Impact Assessment on all potential effects on Irish Air Corps operations. The requirements of the planning authority in relation to the protection of the safe and efficient operation of aircraft shall be adhered to in full. **Reason** To ensure that the development does not adversely impact on the safe and efficient operation of Casement Aerodrome.

Mairead Kenny
Senior Planning Inspector

13 August 2021