Inspector's Report
ABP-316372-23

Development	'Kildare – Meath Grid Upgrade' – Proposed development of a 400kV underground cable between the existing Dunstown 400kV substation in Co. Kildare and the existing Woodland 400kV substation in Co. Meath.
Location	Co. Kildare & Co. Meath
Planning Authority	Kildare County Council & Meath County Council
Applicant(s)	EirGrid plc
Type of Application	Application for approval under section 182A of the Planning and Development Act, 2000, as amended.
Prescribed Bodies	Uisce Éireann Health Service Executive / (Environmental Health Officer) Transport Infrastructure Ireland

	Department of Housing, Local Government and Heritage Office of Public Works
Observer(s)	Land & Utility Compensation Consultants Ltd. on behalf of Mr. Patrick G. Murphy
Date of Site Inspection	19th November, 2024
Inspector	Robert Speer

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1.0 Introduction

1.1. An application has been made by EirGrid plc under the provisions of section 182A of the Planning and Development Act, 2000, as amended ('the Act'), for construction of the 'Kildare – Meath Grid Upgrade' (Capital Project Ref. CP966) which primarily comprises the development of approximately 53km of new 400kV underground cable (along with associated equipment, apparatus, structures, and site development works) between the existing Dunstown 400kV substation in the townland of Dunstown, near Two Mile House, Co. Kildare, and the Woodland 400kV substation in the townland of Woodland, near Batterstown, Co. Meath, as well as upgrading works to both substations to facilitate the connection of the underground cable to the electrical grid.

1.2. The purpose of the proposed development is to assist in the transfer of primarily renewable electricity from the south and southwest regions of Ireland to the east region, and its subsequent distribution within the network in Meath, Kildare and Dublin.

1.3. Significant levels of new renewable electricity generation have connected or are in the process of connecting to the transmission and distribution system in the south and southwest regions. This is also where the newer and more cost effective existing conventional generation units are located. Therefore, a scenario has arisen whereby a significant portion of the generation sources are located in the south and southwest of Ireland away from the main demand centres within the Dublin and Greater Dublin Areas and the eastern region in general. The power that is generated in these regions needs to be transported cross-country to where it is needed – known as demand centres – and this is mainly achieved via the two existing 400kV lines from Moneypoint station in Co. Clare to Dunstown substation in Co. Kildare and Woodland substation in Co. Meath. A further driver for the proposed development is the increased electricity demand on the east coast expected as a part of natural growth and the planned connection of high energy users in the region (a trend which is expected to continue). The proposed development will connect the Dunstown and Woodland substations and will serve to strengthen the transmission network by improving reliability and security in the eastern region.

1.4. Following pre-application consultations (ABP Ref. No. ABP-314122-22), the Board determined that the proposed development would fall within the scope of section 182A of the Planning and Development Act, 2000, as amended, and thus would constitute Strategic Infrastructure Development requiring an application to be made directly to the Board.

2.0 Site Location and Description

2.1. The proposed development site encompasses both the Woodland 400kV substation in the townland of Woodland, near Batterstown, Co. Meath, and the Dunstown 400kV substation in the townland of Dunstown, near Two Mile House, Co. Kildare, along with the route of the underground cable (UGC) between those substations. Approximately 37.8km of the proposed UGC will be located in Co. Kildare with the remaining 15.1km located in Co. Meath. It is further estimated that 82% of the UGC will be laid along public roads with the remaining 18% traversing privately held lands (off-road routes have been proposed at particular locations to avoid specific constraints).

2.2. In terms of the route description (from north to south), the UGC commences at the south-western corner of the existing Woodland 400kV substation and extends southwards through a series of agricultural fields to the townland of Jenkinstown where it meets the R156 Regional Road. The route then follows that roadway northwest towards Mullagh Crossroads before bypassing the junction by crossing a field to link with the R125 Regional Road. It continues southwards along the R125 before travelling westwards across a short stretch of local road at Ballyfeghan to the north of Kilcock to meet the R158 Regional Road. The cable route then passes to the west of Kilcock with off-road crossings of the Rye Water, the Royal Canal, and the Dublin-Sligo railway line. It rejoins the public road at the R148 Regional Road before turning south towards the M4 Motorway where there will be an off-road crossing underneath. To the south of Kilcock and the M4, the UGC route will follow the R407 Regional Road as far as Boherhole Crossroads where it will turn south-westwards onto the R408 Regional Road thereby avoiding Clane before continuing towards Prosperous. Close to the townland of Cott (to the northeast of Prosperous), the route will leave the public road to extend south-eastwards through agricultural lands and avoiding the built-up area of Prosperous before meeting the R403

Regional Road. It will follow this road as far as Firmount Crossroads where it will turn southwards onto Local Road No. L2002 before proceeding through Millicent Crossroads. In the vicinity of Blundell's Bridge the route takes a short diversion through private lands before rejoining the local road after which it will again leave the public road at Millicent to cross underneath the River Liffey. On the eastern bank of the River Liffey, the cable route will connect with the Sallins Bypass to cross the River Liffey again, the Grand Canal, and the Dublin – Cork / Limerick railway line. To the north of the M7 Motorway, the UGC route will leave the Sallins Bypass to cross private lands before passing under the motorway via a local road (Osberstown Road). It will then travel along the R445 (Millenium Park) Regional Road / Millenium Link Road (Western Distributor Road) to the west of Naas as far as the Caragh Road Roundabout where it will turn east onto the R409 Regional Road and travel towards Naas town. The UGC route will then leave the roadway to pass off-road alongside the Naas Sports Centre in order to cross under the Grand Canal, an open area within Jigginstown Green, and the R445 Regional Road, where it will re-emerge to the east of the Jigginstown Castle complex. At this point, the route will follow the R445 & R447 South Ring Road to the Kilcullen Road Roundabout where it will turn onto the R448 Kilcullen Road before continuing south past Killashee. To the southwest of the junction with the R412 Regional Road, the route will go off-road again across agricultural land to connect with the R412 before travelling into the Dunstown 400kV Substation.

2.3. Along the UGC route (and within the planning application boundary), it is proposed to provide a number of temporary construction compounds, laydown areas, and passing bays, however, these are temporary and will be removed on project completion with the lands reinstated to their original condition.

3.0 **Proposed Development**

3.1. The proposed development primarily comprises the development of 52.9km of new 400kV underground cable, with associated equipment, apparatus and structures, and site development works, between the Dunstown 400kV substation in Co. Kildare and the Woodland 400kV substation in Co. Meath, as well as works in both substations to facilitate the connection of the underground cable into the electrical grid.

3.2. It consists of the following principal elements:

A. Installation of an underground cable (UGC) incorporating the following:

- Construction of a trench approximately 1.5m in width and approximately 1.3m in depth in the public road (c. 43.5km) and approximately 1.7m in depth on private lands (c. 9.5km) in which the UGC is laid;
- Construction of joint bays, each approximately 10m in length and 2.5m in width – with adjacent communication chambers and link boxes along the alignment of the UGC (on average every 750m). Where joint bays are located off-road, permanent hardstanding areas will be created approximately 3m around the joint bays;
- The laying of communication links and fibre optic cables between both substations, running in the same trench as the UGC;
- The laying of 12 No. permanent access tracks (approximately 4m in width and 4.5km in length) over private lands to access the off-road joint bays (and adjacent communication chambers and link boxes);
- The provision of 6 No. temporary construction compounds (c. 5.7 hectares in total) and 2 No. construction laydown areas along the alignment of the cable route;
- The provision of temporary construction passing bays at 33 No. joint bay locations, each approximately 100m in length and 5.5m in width.
- The laying of 11 No. temporary construction tracks (approximately 9.5km in total length);
- All associated water, rail, road and utility crossings using either trenchless drilling or open cut techniques; and
- All associated and ancillary above and below ground site development works, including works comprising or relating to permanent and temporary construction roadworks, utility diversions and site and vegetation clearance.

B. Installation of additional electrical equipment and apparatus at the Woodland Substation, Co. Meath, which is similar to the existing infrastructure and will be installed in a permitted compound extension (PA Ref. No. 22/1550). This will include:

- Installation of a 400kV feeder bay and associated electrical shunt reactor (c. 8m in height);
- Insulators, instrument transformers, overhead conductors, disconnectors, circuit breakers, surge assertors (c. 12.6m in height) in order to connect the bay to the busbar;
- All ancillary site development works including site preparation works, temporary compound, underground cabling, and earthgrid, as required to facilitate the development.

C. Installation of additional electrical equipment and apparatus at the Dunstown substation which are similar to the existing infrastructure and do not require extension of the substation compound. This will include:

- Installation of a 400kV feeder bay and associated electrical shunt reactor (c. 9m in height);
- An extension to the 400kV busbar to connect the 400kV cable feeder bay to the existing 400kV busbar;
- 10 No. lightning masts (c. 41m high);
- Insulators, instrument transformers, current transformers, overhead conductors, disconnectors, circuit breakers, surge assertors (c. 12.7m in height) in order to connect the bay to the busbar; and
- All ancillary site development works including site preparation works, temporary compound, underground cabling and earthgird, surface water drainage, and lighting poles as required to facilitate the development.

4.0 **Consultations**

4.1. Details of the application were circulated to the following prescribed bodies:

- Minister for Housing, Local Government and Heritage
- Department of Housing, Local Government and Heritage (Development Applications Unit)
- Minister of the Environment, Climate and Communications
- Minister for Tourism, Culture, Arts, Gaeltacht, Sport and Media
- Minister for Transport
- Department of Agriculture, Food and the Marine
- Meath County Council
- Kildare County Council
- Inland Fisheries Ireland
- Transport Infrastructure Ireland
- Uisce Éireann
- Commission for Regulation of Utilities
- Fáilte Ireland
- An Taisce
- The Heritage Council
- An Chomhairle Ealaíon (The Arts Council)
- Córas Iompair Éireann
- Irish Rail
- Commission for Railway Regulation
- Waterways Ireland
- Office of Public Works

4.2. Responses were initially received from Uisce Éireann, Transport Infrastructure Ireland, Kildare County Council and Meath County Council along with a submission from the Health Service Executive (Environmental Health Service / Officer).

4.3. Following the receipt of significant further information, which included an Environmental Impact Assessment Report, a revised Natura Impact Statement and the publication of new public notices, further submissions were received from the Department of Housing, Local Government and Heritage, the Office of Public Works, Transport Infrastructure Ireland, and Meath County Council.

4.4. The contents of these submissions are summarised below.

5.0 Submissions

5.1. Prescribed Bodies

5.1.1. ***Uisce Éireann (UE):***

- It is noted that there appear to be 128 No. locations where the proposed 400kV underground cable will cross UÉ assets. UÉ can confirm that a Confirmation of Feasibility (CoF) in relation to diversions was issued on 2nd May, 2023 as regards the proposed development.
- Having reviewed the proposals for building near / under UÉ watermains and wastewater sewers, and on the basis of the details provided, it is considered that the proposed works can be facilitated, subject to valid agreements being put in place.
- It is assumed that all crossings will be below UÉ assets. In a scenario where site investigations determine that any crossing will need to be above an UÉ asset, then this will need to be agreed in writing with UÉ in advance and an associated 'Build Over Agreement' executed prior to any works taking place. In such a scenario, in order for the detailed designs to be agreed with UÉ, the applicant will need to demonstrate that no other option is feasible but to cross above and propose appropriate mitigation measures to ensure that:
  - No additional load is applied to UÉ assets from above.
  - Sufficient access is established to maintain and replace the UÉ assets in any locations under the High Voltage (HV) underground cables in the future.

- Clarification if outages of the HV underground cables would be required to carry out such works.
- No impact to UÉ's assets as a result of the underground cable works.
- Agreement of the detailed design for the crossings with UÉ and entering into an associated 'Build Over Agreement'.

- There is no objection to the proposal provided that all UÉ assets are protected during the construction and operation phases of the development; adequate separation distances are provided between UÉ assets and the underground cable; and any development near UÉ assets is carried out in compliance with UÉ Standard Details and Codes of Practice.
- It is recommended that the following conditions be included in any grant of permission:

1. Designs for the 400kV underground cable and associated infrastructure shall be in accordance with separation distances and all other requirements outlined in the UÉ Standard Details and Codes of Practice.
2. In the scenario the applicant subsequently updates its proposal to include any build over / near or diversion of existing UÉ water or wastewater services, the applicant shall submit details to UÉ for assessment and will be required to enter into a Build Over Agreement and / or Diversion Agreement with UÉ prior to the works taking place on the ground.

5.1.2. ***Transport Infrastructure Ireland:***

The contents of an initial submission dated 16th June, 2023 can be summarised as follows:

- The Authority is open to any initiative to improve the energy security of the State and acknowledges the strategic importance of the proposed development in providing security in energy supply for the region; addressing increasing demand in the region; and providing grid capability to accommodate renewable energy generation.
- It is accepted that the availability of a safe, secure and reliable supply of electricity is an essential requirement for Ireland's current and future

economic wellbeing and that the transition from conventional fossil fuel power generation to sustainable forms of renewable energy supply (such as wind and solar power) is an essential development if Ireland is to meet its obligations to cut greenhouse gas emissions.

- *National Road Network Interface:*

  - The proposed development involves the crossing of the M4 and M7 motorways. In this regard, there is a need to safeguard levels of safety, capacity and national investment in the strategic national road network. Chapter 7: *'Enhanced Regional Accessibility'* of the National Development Plan, 2021-2030 sets out the key sectoral priority of maintaining Ireland's existing national road network to a robust and safe standard for users while National Strategic Outcome 2 of the National Planning Framework includes the following objective:

    'Maintaining the strategic capacity and safety of the national roads network including planning for future capacity enhancements'.

  - The requirement to safeguard the carrying capacity, operational efficiency, safety, and significant national investment made in national roads is also reflected in the '*Spatial Planning and National Roads, Guidelines for Planning Authorities, 2012'*, EU TEN-T Regulation No. 1315/2013, and the National Investment Framework for Transport in Ireland (NIFTI).

  - Any proposed crossing of the motorway network must adhere to established procedures and standards as regards such crossings and the applicant is aware of the Authority's requirements.

- *Upgrade Project Consultation:*

  - Consultations have been held with TII as regards the proposed development and specifically in relation to the proposed motorway crossings. Although TII was provided with a *'Technical Note for Motorway Crossings'* (13th March, 2023), following feedback from the Authority the applicant prepared a revised *'Technical Note for Motorway Crossings'* (9th May, 2023). This revised technical note was only circulated after the lodgement of the application with the Board.

- Having reviewed the application documentation, it is noted that details in relation to the proposed motorway crossings (the applicant's '*Technical Note for Motorway Crossings'* and the commitments given in that document) do not appear to have been included.
- While the submission of documentation (such as a *'Technical Note for Motorway Crossings'*) with a planning application is a matter for the applicant, TII's requirements for the proposed motorway crossings remain as per its previous submissions to EirGrid dated 10th November, 2021 and 28th March, 2023. These requirements can be summarised as follows:

  a) Overall Requirements:

  - A third party seeking to cross a motorway will require Works Specific Deeds of Indemnities, arrangements for third party access or consent from TII in accordance with Section 53 of the Roads Act, 1993. Arrangements for third party access are also likely to be required.
  - When EirGrid carry out works constructing the ESB network, both ESB and EirGrid need to be party to these consent / agreements.
  - Contact should be made via 'thirdpartyworks@tii.ie' to progress the matter.

  b) M4 HDD Crossing Requirements:

  General requirements for directional drilling under a motorway include:

  - The launch and reception pits for the crossing are located outside the motorway boundary.
  - The cabling will be installed at such depth as not to conflict with the drainage for the motorway.
  - Neither the works nor the cable crossing will damage or interfere with the motorway.

- Any maintenance and / or future planned upgrades of the cabling at the crossing location can be carried out without access to the motorway boundary.
- There are no bolted joints in that part of the crossing within the motorway fence-line.
- A pre and post construction survey shall be required along the length of the crossing over the extents of the motorway boundary.
- Specific requirements may also arise for these proposed works.

c) M7 Crossing Requirements:

- The crossing of the M7 is via a local road under the M7 at TII Structure ID KE-M07-034.00 (Osberstown Road Bridge). The Kildare Meath Grid Upgrade Project designers will need to liaise with TII Bridge Management Section to ensure that the national road structure is not adversely affected and to ensure adherence to required standards and procedures.

  It is acknowledged that EirGrid has committed to this engagement in the '*Technical Note for Motorway Crossings'* circulated in May, 2023. However, this is not reflected in the application documentation.

d) General Requirements:

- The national road network is managed by a combination of PPP Concessions, Motorway Maintenance and Renewal Contracts (MMaRC) and local road authorities in association with TII. TII recommends consultation with relevant PPP Companies, MMaRC Contractors and road authorities to ascertain any requirements, timetabling of works etc. to ensure that the strategic function of the national road network is safeguarded.

- *Conclusion*

It is considered that the aforementioned requirements can be addressed in the interests of progressing the proposed development complementary to safeguarding the carrying capacity, operational efficiency, safety and significant national investment made in national roads in accordance with official Government policy.

However, it is critical that the specific requirements outlined in items a) to d) above are addressed and, therefore, they should be included as conditions of any grant of permission.

5.1.3. Following the preparation and lodgement of an Environment Impact Assessment Report with the Board, a further submission dated 18th June, 2024 was received from Transport Infrastructure Ireland, the contents of which can be summarised as follows:

- The Authority reiterates its earlier position as regards the strategic importance of the proposed development and seeks to ensure that the proposal can proceed complementary to safeguarding the strategic function and levels of safety on the national road network.
- In addition to the previous requirements identified with respect to HDD crossings, the following matters have the potential to impact the national road network:

  1. *Traffic Management and Maintaining the Strategic Function of National Roads:*

     - The construction works have the potential to result in significant disruption to strategic traffic impacting the national road network and associated junctions.
     - The Traffic Management Plan provided with the EIAR outlines proposals in the vicinity of the M4 Junction 8 (Kilcock), including lane closures on the R407 to accommodate grid construction and associated joint bays, while further arrangements are proposed in the vicinity of M7 Junction 9a (Sallins).
     - The national road network is managed by a combination of PPP Concessions, Motorway Maintenance and Renewal Contracts, and

local road authorities in association with TII. In implementing any Traffic Management Plan, it is recommended that consultations are undertaken to ascertain any requirements, timetabling of works etc. with a view to ensuring that the strategic function of the national road network is safeguarded.

- In the event of a grant of permission, the following requirements should be included by way of condition as regards traffic management:

  'Full details of all Traffic Management in the vicinity of the National Road Motorway network, including associated junctions, shall be submitted for agreement with the planning and roads authority, in consultation with TII, relevant PPP Companies and MMaRC Contractors where appropriate, prior to the commencement of any development, including the following requirements:

  a) *Prior to the commencement of development, a TTM monitoring and review protocol shall be agreed with the local authorities in liaison with TII and their agents and shall include a mechanism providing for TTM update and / or amendment.*

  b) *In particular, TTM in the vicinity of motorway junctions shall be designed, maintained and operated to ensure no peak hour flow issues to the motorway mainline or associated junctions. No TTM changes shall be enacted during peak am or pm periods.*

  Reason: In the interests of safeguarding levels of safety and the strategic function of the national road network in accordance with National Strategic Outcome Number 2 of the National Planning Framework'.

2. *Accommodating Abnormal Loads and any Exceptional Abnormal Loads on the National Road Network.*

   - The EIAR has identified 'Cable Drum Delivery' as encompassing an abnormal load.

- Although the application makes no reference to the potential for any 'Exceptional Abnormal Loads', there are established procedures addressing the transportation of any abnormal or exceptional abnormal loads on the road network.
- In the event of a grant of permission, the following requirements should be included by way of condition as regards the transportation of any abnormal loads on the road network:

  'Full details of the transportation of all Abnormal Loads and any 'Exceptional Abnormal Loads' associated with the development shall be agreed with all planning and road authorities along all proposed haul routes prior to the commencement of any development.

  Reason: In the interests of safeguarding levels of safety and the strategic function of the national road network in accordance with National Strategic Outcome Number 2 of the National Planning Framework'.

- Any decision to grant permission should address TII's initial observations relating to the requirements of motorway crossings along with the foregoing recommendations pertaining to traffic management and abnormal loads.

  (to include the above conditions and the following:

  'Full details of all Motorways HDD Crossings shall be submitted for agreement with the planning and roads authority, in consultation with TII, prior to the commencement of any development, and, consent from TII in accordance with Section 53 of the Roads Act, 1993, shall be in place prior to the commencement of any Motorway HDD Crossing.

  Reason: In the interests of safeguarding levels of safety and the strategic function of the national road network in accordance with National Strategic Outcome Number 2 of the National Planning Framework').

5.1.4. ***Department of Housing, Local Government and Heritage:***

Terrestrial Archaeology:

- The Department broadly agrees with the findings of the EIAR as regards archaeology and cultural heritage.
- Although Chapter 13 of the EIAR has been informed by a walkover and windscreen survey as well as an analysis of a LiDAR survey for the full scheme route, no Advance Archaeological Geophysical Survey or Advance Archaeological Test Excavations have been carried out.
- Issues of particular concern remain unresolved in relation to:

  Impact of the proposed development on Jigginstown Castle and its associated features:

  The EIAR only considers the effects of vibration and not the direct effects of groundworks. It subsequently states that the development will have no negative effects on the National Monument with no mitigation measures proposed. However, it is clear that the HDD compound at the south side of the Grand Canal will be located within the curtilage of the monument as defined by the Preservation Order No. 3/2000. Therefore, there will be direct effects to the protected monument from the development groundworks. Furthermore, the particular vulnerabilities of the structure to impact from vibration may not have been adequately assessed.

  Jigginstown Castle was built in the 1630s by Thomas Wentworth, Earl of Stafford, and Lord Deputy of Ireland (1633-7) as a summer residence for himself and as an intended (but never used) residence for King Charles I. It was one of the earliest large scale brick buildings in Ireland and set the fashion for later 17th Century country houses. The historic graffiti on the surviving plaster in the basement of Jigginstown Castle gives a rare insight into tourism and sightseeing in 18th Century Ireland.

  The remains of the house itself (KD019-033001-) are a National Monument in the ownership of the Minister (NM 528) while the wider curtilage is subject to a Preservation Order (3/2000) that encompasses: KD019-032---- (Gatehouse); KD019-033001- (House – 17th Century); KD019-033002- (Enclosure); KD019-033003- (Designed landscape – formal garden); KD019-033004- (Kiln – lime); and KD019-034---- (Castle – tower house). These monuments are subject to

statutory protection under Section 14 of the National Monuments (Amendment) Act, 1930-2014.

The short duration of occupation at Jigginstown Castle is significant; it did not see successive periods of remodelling and rebuilding as occurred at many castles and mansions in Ireland. This increases the likelihood that sub-surface archaeological remains contemporary with the construction of the castle survive at and adjacent to the site. The house was originally approached from the north, prior to the construction of the canal, and the remains of the avenue may be preserved on the bridge over the canal and the laneway connecting it to the road. Excavations in 1979 in advance of construction on the Newbridge Road, located east of Jigginstown Castle and the area of the Preservation Order, examined the ditches which once surrounded Jigginstown Castle and its gardens indicating the extent of the historic landscape. Therefore, it is extremely probable that subsurface remains associated with Jigginstown Castle survive in the current greenfield area immediately east of the site where the HDD Compound is proposed.

The proposed cable route extends within the area of the Preservation Order while the HDD compound on the southern side of the Grand Canal is located entirely within that area (please refer to the accompanying copy of Preservation Order No. 3/2000). Therefore, the proposed development would have a significant direct negative and permanent impact on the monument. This area is considered part of the monument as defined by the Preservation Order and enjoys protection under Section 14 of the National Monuments Act, 1930-2014. It is a legal requirement under Section 14 of the Act that Ministerial Consent be obtained for any works to it or ground disturbance around or in proximity to it.

The EIAR has acknowledged that the sensitivity of Jigginstown Castle and all elements of its curtilage afford it a baseline value of *'Highly Significant'*. However, in assessing the likely effects of the proposal, the EIAR has failed to identify that the proposed development intrudes into the area subject to the Preservation Order and that there will likely be direct and indirect effects to the monument as a result of the groundworks required for the cable, joint bay, HDD pit and compound. Furthermore, the EIAR does not consider whether

the proposed works might impact the planned future provision of access to the site from the east and future presentation of the monument.

While the EIAR does consider the effects of vibration to the upstanding remains of Jigginstown Castle, it may not have taken sufficient account of the vulnerabilities of the structure. The east end of Jigginstown Castle is in a particularly fragile condition and the potential impact of vibrations on its fabric must be assessed in detail prior to any works.

No mitigation measures whatsoever have been proposed to protect this extremely vulnerable monument. This must be addressed if the development is permitted to proceed.

If further information were to be requested by the Board, consideration should be given to including clarification of the aforementioned points.

Notwithstanding, the Department advises that the following be included as a condition of any grant of permission (*N.B.* These recommended conditions align with Sample Conditions C3, C5 & C6 of OPR Practice Note PN03: '*Planning Conditions',* (October, 2022), with appropriate site-specific additions / adaptations based on the particular characteristics of the development and informed by the findings of the EIAR).

Archaeological Requirements:

1. All mitigation measures in relation to archaeology and cultural heritage as set out in Chapter 13 of the EIAR shall be implemented in full, except as may otherwise be required in order to comply with the conditions of this order.
2. A Project Archaeologist shall be appointed to oversee and advise on all aspects of the scheme from design, through inception to completion.
    a) The Project Archaeologist shall liaise with the Department to agree in advance an overall strategy for archaeological works to be carried out both in advance of and in parallel with construction of the development. This shall include the scope of all Advance Archaeological Geophysical Survey, Advance Test Excavation and Archaeological Monitoring as

well as any additional mitigation measures that may be required to protect archaeological heritage.

3. The developer shall engage a suitably qualified archaeologist (licensed under the National Monuments Acts) to carry out a pre-development Archaeological Geophysical Survey and a pre-development Archaeological Test Excavation of the development site for all greenfield sections of the development and to submit an Archaeological Impact Assessment Report for the written agreement of the Planning Authority, following consultation with the Department, in advance of any site preparation works or groundworks, including site investigation works / topsoil stripping / site clearance and / or construction works.

   a) The Archaeological Geophysical Survey must be carried out under licence from the National Monuments Service or Ministerial Consent (as applies) and in accordance with an approved Method Statement. Having completed the work, the archaeologist shall submit a written report to the Department and to the Planning Authority describing the results of the Archaeological Geophysical Survey.

   b) The Project Archaeologist shall liaise with the Department to establish – based on the results of the Archaeological Geophysical Survey – the appropriate scope of the Archaeological Test Excavation to adequately characterise the character and extent of any potential subsurface archaeological material within the development site.

   c) The report on the Archaeological Test Excavation shall include an Archaeological Impact Statement and mitigation strategy. Where archaeological material is shown to be present, avoidance, preservation in-situ, preservation by record (archaeological excavation) and / or monitoring may be required.

   d) Any further archaeological mitigation requirements specified by the Planning Authority, following consultation with the Department, shall be complied with by the developer.

e) No site preparation and / or construction works shall be carried out on site until the archaeologist's report has been submitted to and approval to proceed is agreed in writing with the Planning Authority.

4. A suitably qualified archaeologist shall be retained to advise on, and establish, appropriate Exclusion Zones around the external-most elements of vulnerable Heritage Assets (as identified in Chapter 13 of the EIAR or by any subsequent investigations associated with the project).

   a) Exclusion Zones shall be fenced off or appropriately demarcated for the duration of construction works in the vicinity of the monuments. The location and extent of each Exclusion Zone and the appropriate methodology for fencing off or demarcating at each location shall be agreed in advance with the Department and the Planning Authority.

   b) No groundworks of any kind (including but not limited to advance geotechnical site investigations) and no machinery, storage of materials or any other activity related to construction will be permitted within Exclusion Zones.

5. The Construction Environmental Management Plan (CEMP) shall include the location of any and all archaeological or cultural heritage constraints relevant to the proposed development as set out in Chapter 13 of the EIAR and by any subsequent archaeological investigations associated with the project. The CEMP shall clearly describe all identified likely archaeological impacts, both direct and indirect, and all mitigation measures to be employed to protect the archaeological or cultural heritage environment during all phases of site preparation and construction activity.

6. The Planning Authority and the Department shall be furnished with a final archaeological report describing the results of all archaeological monitoring and any archaeological investigative work / excavation required, following the completion of all archaeological work on site and any necessary post-excavation specialist analysis. All resulting and associated archaeological costs shall be borne by the developer.

   Reason: To ensure the continued preservation (either in situ or by record) of places, caves, sites, features or other objects of archaeological interest.

Underwater Archaeology:

- It is noted that the EIAR incorporates a desk-based Archaeological Impact Assessment (AIA) which states the following:

  'There is potential for impacts on archaeological remains and artefacts that may survive in watercourses and in the land adjacent to them. Ten watercourses will be crossed using existing road structures (WB27, WB29, WB33, River Liffey (WB36 & WB37), WB38, WB39, WB40, WB41 & WB43), therefore avoiding watercourses themselves and the land immediately adjacent to them. No potential impacts on archaeological remains and artefacts that may survive have been identified. Five watercourses (including two canals) will be crossed using HDD (Rye Water WB13, Royal Canal WB14, Tributary of the River Lyreen WB20, River Liffey WB35, and Grand Canal WB42). There will therefore be no impact on these watercourses. In addition, ground disturbance at temporary launch and reception pits for HDD will also be reduced through the temporary installation of a level hardstanding area on a geotextile base for the drilling rig.

  In-stream trenching will be required at 26 watercourses. Of these:

  - *Ten are drainage ditches (WB05, WB17, WB18, WB19, WB21, WB26, WB30, WB32, WB34 & WB45); and*
  - *Sixteen are streams (WB01, WB02, WB03, WB04, WB06, WB07, WB08, WB09, WB10, WB12, WB15, WB22, WB24, WB25, WB28 & WB44).*

  As identified in Section 13.3.1, the potential for unknown archaeological remains to be present is considered lower in drainage ditches than within unmodified streams and rivers. Of these streams, two have been dredged (WB04 & WB07) based on drainage scheme information from the Commissioners of Public Works in Ireland flood maps, and the potential for archaeological remains to be present within these watercourses is also considered to be lower than those that have not been dredged. In addition, four of these streams (WB03, WB08, WB10 & WB12) have been subject to modification, based on historic mapping and therefore the potential for

archaeological remains to be present within these watercourses is also considered to be lower'.

- The mitigation recommended in the EIAR includes:

  'Underwater assessments, comprising wade and metal detecting survey of:

  - *WB01 (tributary of the River Tolka);*
  - *WB02 (Dunboyne Stream);*
  - *WB06 (Jenkinstown Stream);*
  - *WB09 (unnamed stream);*
  - *WB22 (Baltracey River);*
  - *WB25 (Gollymochy River).*

  Archaeological metal detecting survey of the banks of WB03, WB04, WB05, WB07, WB08, WB10, WB12, WB17, WB18, WB19, WB21, WB24, WB26, WB28, WB30, WB32, WB34, WB44 & WB45'.

- The Department advises that the following be included as a condition of any grant of permission (*N.B*. These recommended conditions align with Sample Conditions C3, C5 & C6 of OPR Practice Note PN03: '*Planning Conditions'* (October, 2022) with appropriate site-specific additions / adaptations based on the particular characteristics of the development and informed by the findings of the EIAR).

  Archaeological Requirements:

  1. All mitigation measures in relation to underwater cultural heritage as set out in Chapter 13 of the EIAR shall be implemented in full, except as may otherwise be required in order to comply with the conditions of this order.
  2. In advance of the commencement of any construction works, the developer shall engage a suitably qualified archaeologist to carry out an Underwater Archaeological Impact Assessment (UAIA) that includes the following:

     a) A desktop assessment that addresses the underwater cultural heritage (including archaeological, built, vernacular, riverine and industrial

heritage) of the proposed development area. The assessment shall include a full inventory, mapping and survey (photographic, descriptive, photogrammetric, as appropriate) of underwater cultural heritage features and structures identified by fieldwork, cartographic analysis, historical research and prior archaeological investigations.

b) A licensed dive / wade assessment, accompanied by a hand-held metal detection survey, centred on (but not confined to) the area(s) where in-stream works are proposed at;

- WB01 (tributary of the River Tolka);
- WB02 (Dunboyne Stream);
- WB06 (Jenkinstown Stream);
- WB09 (unnamed stream);
- WB22 (Baltracey River);
- WB25 (Gollymochy River);
- Watercourses that occur within areas of high archaeological potential / Zones of Notification of Recorded Monuments / concentrations of recorded monuments.

Where additional watercourse crossings may be impacted upon as a consequence of design changes the developer shall consult with the department regarding further requirements. The dive and metal detection surveys shall be undertaken by a suitably licensed and experienced underwater archaeologist. All identified underwater cultural heritage shall be surveyed (photographic, descriptive, photogrammetric) in detail as part of the assessment.

c) A Dive / Survey licence (Section 3 1987 National Monuments Act) and Detection Device consent (Section 2 1987 National Monuments Act) shall be required for the dive survey and metal detection, respectively. Licences shall be applied for to the National Monuments Service and shall be accompanied by a detailed Method Statement. Note that a period of 3-4 weeks shall be allowed to facilitate processing and

approval of the licence applications and Method Statement. All archaeological wading / diving shall comply with the Health and Safety Authority's Safety, Health and Welfare at Work (Diving) Regulations, 2018/2019.

d) Having completed the above-described works, the archaeologist shall submit a written report to the Department describing the results of the UAIA. The report shall include a comprehensive Archaeological Impact Statement (AIS) that comments on the degree to which the extent, location and levels of all proposed construction activities required for the development will impact upon any underwater cultural heritage, archaeological material, objects and / or areas of archaeological potential that have been identified. The AIS shall describe the potential impact(s) of all proposed in-stream construction activities, access and ingress routes to waterways, and shall also assess any proposed additional Site Investigation / Geotechnical impacts and potential secondary / indirect impacts such as scouring resulting from changes in hydrology. The AIS shall be illustrated with appropriate plans, sections and photographs that clearly describe any adverse effect(s) of the development on the underwater cultural heritage and proposals for their mitigation. Mitigation shall include recommendations for redesign to allow for full or partial preservation in situ, the institution of archaeological exclusion zones, further wade / dive surveys, test-excavations, excavations ('preservation by record') and / or monitoring, as deemed appropriate. The Department will advise with regard to these matters. No construction works affecting waterways shall commence until after the UAIA has been submitted and reviewed. All recommendations will require the agreement of the Department.

3. The Construction Environmental Management Plan (CEMP) shall include the location of any and all underwater cultural heritage constraints relevant to the proposed development as set out in Chapter 13 of the EIAR and by any subsequent archaeological investigations associated with the project. The CEMP shall clearly describe all identified likely archaeological impacts, both direct and indirect, and all mitigation measures to be

employed to protect the archaeological or cultural heritage environment during all phases of site preparation and construction activity.

Reason: To ensure the continued preservation (either in situ or by record) of places, caves, sites, features or other objects of archaeological interest.

Architectural Heritage:

- The proposed development has the potential to significantly impact on Jigginstown Castle and its ancillary features such as the gate house, farmhouse, bridge and the surviving historic landscape.
- The architectural and cultural significance / sensitivities of the site require further consideration given that Jigginstown Castle and its setting and landscape features are of national / international importance. The use of such a culturally important site for major subterranean infrastructure requires detailed survey and assessment. Further assessment of the surviving landscape is necessary to ascertain the scale of the impact and to avoid the loss of cultural integrity and significance.
- Concerns also arise owing to the absence of adequate information regarding structural survey and condition and the ability of the historic structure to withstand vibration and the excavation proposed immediately adjacent to the masonry ruin.
- A further consideration is the location of the underground structure and its impact on increasing ground water pressure to the masonry footings / vaulted basement as well as the possible impact of de-watering of the site causing soil shrinkage.
- The Department recommends that:

    1. To determine the cultural heritage impact of the location and design of the infrastructure the services of a Grade 1 Conservation Architect or equivalent are required to assess surviving historic fabric and its setting.

        a) Detailed drawn and photographic survey of Jigginstown Castle prior to the undertaking of works is required.

b) Mitigation measures as necessary to be identified i.e. consolidation and protection to ensure the long term security of the monument and its setting.

2. If permission is granted, a Grade 1 Conservation Architect or equivalent should be appointed to oversee the construction phase and co-ordinate all works undertaken to offset impact of the proposed construction and to record as necessary all conservation works undertaken as part of the project to maintain a permanent record. Interventions to the historic landscape should be carefully considered as part of a fully co-ordinated approach to be based on an understanding of the setting of the historic Jigginstown Castle.

5.1.5. ***Office of Public Works:***

- Jigginstown House was constructed in 1636-37 by Thomas Wentworth (Lord Deputy of Ireland from 1633 to 1640) and was one of the first houses built with red brick in Ireland. It was built on a scale unique in the Irish context and subsequently fell into disrepair following Wentworth's execution for treason in 1641. In 1939, a Preservation Order was placed on the property. Jigginstown House (National Monument No. 528) is now in the ownership of the Minster of Housing, Local Government and Heritage and is maintained and managed by the Office of Public Works.
- There are concerns as regards the potential impact of the works and infrastructure proposed within that parcel of land owned by Kildare County Council to the east of the monument. Jigginstown House is a fragile ruined structure, particularly so at its eastern end. In addition, the construction details of the brick elements of the external walls makes them very vulnerable to movement. Visual observations and scientific testing have revealed that the historic bricks are very soft and weak (while also being weaker than the mortar that binds them together). The building and its materials are extremely fragile and concerns arise as regards the potential impacts of vibration, in particular those caused by Horizontal Directional Drilling, but also by general construction operations.

- The proposed drilling has been identified as the primary source of noise and vibration during the construction phase. The OPW notes that the noise prediction for the Sensitive Receptor to the east of the HDD compound is stated to be 67dB, 'Moderate', for 60 days and is rated as being 'Significant'. It is also noted that while the application has assessed vibration during the standard works period, startup vibration is expected to be higher. In this regard, the fragility of the Jigginstown House ruins must be highlighted and there are concerns that this may not be fully understood or factored in at this stage of the process.

  On the basis of the information contained in the EIAR (including Plate 9.2: *'Predicted resultant PPV vibration level during HDD'*), it would appear that at a distance of 50m, the anticipated vibration is only marginally below the British Standard (BS): 5228-2 threshold for potentially vulnerable buildings. The OPW is concerned that Jigginstown House, in its ruined and exposed state, may be more fragile / vulnerable than the typical *'potentially vulnerable building'* and, therefore, further discussion with the applicant and its agents in advance of any grant of permission would be welcomed for the purpose of agreeing measures to safeguard the monument and to monitor and immediately mitigate impacts.

- In the event of a grant of permission, a condition should be included that requires the applicant to commit its contractors to carrying out agreements to be put in place with the OPW (and the Department of Housing, Local Government and Heritage). Ministerial Consent may be required for some or all of the agreed activities. It should also be noted that the building contains a historic vaulted basement which should be considered in any assessment. The applicant and its contractors should engage a Conservation Engineer and Conservation Architect and any other necessary experts with appropriate experience and competence relating to a structure of this nature and of National Monuments, to the OPW's satisfaction. The nature of the agreement may include the following measures (this list not being definitive and as it may change as a result of discussions with the OPW):

  1. Agree a communications strategy with the OPW and the NMS;

2. Undertake a condition assessment of the eastern part of the structure, the extent to be agreed with the OPW, and any other ancillary structures in proximity to the works, to be agreed with the OPW;
3. Provide details of vibration and impact calculations to the OPW, and take note of any observations by the OPW;
4. Undertake works to stabilise the structures as required;
5. Apply movement sensors and / or other monitoring equipment, transmitting monitored real-time information;
6. Works to halt at pre-agreed thresholds of movement and mitigations to be put in place, with renewed monitoring, prior to re-starting the works;
7. Do a condition assessment of the structure at an interval agreed with the OPW after the drilling has been completed.
8. It is recommended that this monitoring through sensors etc. commences at least 3 months in advance of the construction of the project and remains in place / continues at least 6 weeks post the operational stage of the project;
9. Do a final condition survey;
10. Remedial works if required to be undertaken by a competent specialist contractor under the supervision of a Conservation professional – Architect or Engineer, all of whom must have experience and competence relevant to the nature of the structure, to the satisfaction of the OPW, noting the requirement for Ministerial Consent.

- There have been discussions in recent years between the OPW and Kildare County Council as regards proposals for the use of the latter's lands beside Jigginstown Castle under licence by the OPW for access and as a builder's compound as well as for the provision of parking and a parkland setting for the National Monument. Accordingly, there are concerns that the proposed development could potentially constrain any proposed use of the aforementioned lands by the OPW for operational and visitor purposes. It is understood that the permanent over ground features proposed will include:
  - A concrete cover to the Cable Joint Bay;

- Covers to the Link Box Chamber and the Communications Chamber;
- Hardstanding surrounding the Cable Joint Bay or all of the above;
- The access track / road;
- Possible fencing (as per detail drawings).

It is unclear what vehicular, weight or other restrictions / constraints may be put in place by the applicant over the foregoing features and any buried ducts etc.

The OPW is concerned about the visual impact of the permanent works within a future landscaped park and car park. This is a very important site and any future park and / or car park will be designed to a very high standard. The OPW would therefore welcome discussions with the applicant and Kildare County Council as regards the issues raised.

- A historic landscape assessment should be carried out by a Historic Landscape Expert, informed if necessary by non-invasive archaeological investigations (under Ministerial Consent), to ascertain previous uses of the land and the potential for garden features; built, land and horticultural, to lie on or beneath the ground surface. The outcome of this assessment may give rise to changes in the design of the proposed development.
- Although the OPW recognises the strategic importance of the proposed development to the decarbonisation of the electricity grid and is supportive of the proposal in principle, the Board is requested to give full consideration to its observations.

5.1.6. ***Health Service Executive (Environmental Health Service / Officer):***

(*N.B.* For the purposes of clarity, the Board is advised that the HSE is not included in the schedule of prescribed bodies and notices which forms part of the 'Statutory Particulars' submitted with the application documentation, however, the submission received has nevertheless been considered).

- *Assessment of Impacts on Human Health:*
  - States that Chapter 7 of the PECR considers the impact of the proposed development on population and health before noting that environmental

impacts are addressed separately while statutory emission limits for environmental emissions are set to ensure the protection of the environment and public health.

- Notes that the applicant has advised that electromagnetic fields surround any object generating, transmitting or using electricity and that they cannot be seem, felt or heard. The applicant has also acknowledged that concerns relating to EMFs (Electro Magnetic Frequencies) can lead to increased stress and health issues.
- Notes that the applicant has stated that the *"design of the transmission infrastructure has ensured that the strength of the electric and magnetic fields during operation of the proposed development will comply with the ICNIRP and EU guidelines on exposure of the general public to EMF".*
- The results of any EMF monitoring and a non-technical explanation of same should be made available to all local receptors.

- *Assessment of Impact on Air:*
  - The construction phase could have an adverse impact on the surrounding air environment if not properly managed and controlled. Works could give rise to dust emissions that could cause annoyance or result in damage to vegetation due to the soiling of surfaces. Such activities can also lead to increased short-term and long-term concentrations of fine particulate matter at off-site locations, which may affect human health, unless the appropriate mitigation measures are implemented.
  - The risk assessment undertaken by the applicant has informed the mitigation measures required to control dust emissions and these have been included in the air quality management strategies contained in the Construction and Environmental Management Plan.
  - The applicant has advised that the potential impact on local air quality at sensitive human and ecological locations will be negligible and that an assessment of emissions from construction plant and machinery is not considered further from an air quality perspective.

- An assessment was undertaken of that section of the proposed cable route with the highest number of sensitive receptors. A further assessment of dust emissions was carried out for the formation of temporary construction and drilling compounds. A negligible to low risk for human health impacts has been predicted.
- Mitigation measures are to be implemented to reduce the risk of *'causing a significant effect to amenity, human health or ecological receptors*'. The applicant does not anticipate any impacts on local air quality during the operational phase of the development.
- The Environmental Health Service (EHS) is satisfied that if the control measures set out in the Planning and Environmental Considerations Report and the Construction and Environmental Management Plan are fully implemented and continuously monitored, they are adequate to minimise any impacts on local receptors.
- It is recommended that good practice procedures (including a communication and complaints procedure) are put in place for all environmental impacts e.g. noise, vibration / waste / ground and surface water.

- *Assessment of Noise and Vibration:*
  - Notes that construction noise impacts were assessed according to British Standard (BS) 5228 '*Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1 Noise'* (2009+A1: 2014) and that *"Baseline noise monitoring has not been carried out at construction noise receptors since the use of the most stringent threshold from BS 5228-1 have ensured that a conservative and proportionate assessment has been achieved".*
  - Table 9.8 of the PECR provides a summary of receptors exceeding the 65dB threshold for weekdays and Saturday mornings, the magnitude of impact is described as moderate to major.
  - Construction vibration predictions were considered and included ground compaction and vibratory piling at the HDD compounds. Tables 9.9 & 9.10

of the PECR outline the potential impacts from vibratory compaction and HDD works with several receptors expected to possibly perceive minor to major impacts during the works. However, the applicant has concluded that these impacts will not be significant due to the duration of the works and does not anticipate any cosmetic damage to buildings as a result of vibration.

- The EHS recommends that operating times during the construction phase be limited in order to minimise the impact of noise on local residents:

  Monday to Friday: 08:00-18:00

  Saturday: 09:00-13:00

  Sundays and Public Holidays – No noisy operations on site.

- There should be full engagement with the local community to ensure that residents are aware of works that are planned for their area and can plan for expected disruption.

- The EHS is satisfied that if all mitigation measures are fully implemented, the impact of noise and vibration on local receptors should be minimised and in turn, public heath will be protected.

- *Assessment of Soils, Geology and Hydrogeology:*

  - The EHS advises that the applicant should identify all private wells along the proposed development prior to the commencement of any works. Specific control measures must be agreed to ensure there is no adverse impact on these water supplies during the construction phase.

  - The PECR states that the majority of the study area is underlain with limestone with the potential to contain karstic features. The excavation of bedrock which exposes a karstic feature may create a risk of contaminating groundwater. This contamination may well be localised but could have an adverse impact on groundwater supplies.

  - It is noted that a number of mitigation measures are outlined in Section 11.5 of the PECR and further measures are contained in the CEMP. While the applicant has advised that bedrock is likely to be encountered at variable depths along the entire route, there may well be areas of

contaminated soil or fill also. Therefore, the CEMP must contain detailed control and disposal measures in the event of encountering contaminated soil or fill during excavation works. Similarly, the applicant must consider the impact on local receptors if additional rock-breaking equipment is required to excavate limestone bedrock. Mitigation measures must minimise the impact of noise and vibration on local receptors.

- The EHS is satisfied that the measures outlined will ensure that the risk of contamination of soil and groundwater is minimised and in turn these measures will ensure the protection of public health during the construction and operation of the proposed development.

- *Assessment of Surface Water:*
  - Notes that the potential effects on the surface water environment will be associated with the construction phase during excavation and construction works with the risks having been outlined in Section 12.4.1.1: *'Surface Water Quality'* of the PECR. There is a risk of an adverse impact on surface water if control measures are not implemented. The alteration of surface water flow pathways may increase the risk of localised floods.
  - It is noted that the applicant does not anticipate any significant adverse impacts on the surface water environment during the operational phase. It is understood that flooding of the proposed development will not impact the operation of the cable below ground.
  - Section 12.5 of the PECR and the CEMP outline a number of mitigation measures including silt control measures and routine monitoring during the construction phase to minimise the impact on surface water. The EHS is satisfied that these measures will protect the local surface water environment and in turn, public health.
- *Climate Change:*
  - The applicant has only referred to climate change in the context of the overall need for the project.
  - The Irish Government declared a climate and biodiversity emergency in 2019 and the Climate Action Plan, 2023 sets out a roadmap to halve

emissions by 2030. It is incumbent on every energy consumer to reduce energy consumption and greenhouse gas production to protect human health.

The applicant must take this into consideration during the construction phase of the development. The Board should require the applicant to use any renewable energy technologies if available during the construction phase and to continuously investigate and implement any proven technology / initiative which reduces the production of greenhouse gases.

- *Conclusions*:

1. The applicant should ensure that the results of any EMF monitoring and a non-technical explanation of these results is made available to all local receptors.
2. The applicant outlined good practice dust mitigation measures in Section 8.5.1.1 of the PECR which included a communication and complaints procedure. The EHS recommends that similar good practice procedures are implemented for all environmental impacts e.g. noise / vibration / waste / ground and surface water.
3. The EHS recommends that operating times during the construction phase are limited as follows in order to minimise the impact of noise on local residents:

   Monday – Friday: 08:00 – 18:00

   Saturday: 09:00 - 13:00

   Sundays and Public Holidays – No noisy operations on site.
4. The applicant has outlined a number of mitigation measures in the PECR and CEMP for the control of noise and vibration, including a communications plan for local receptors. The EHS recommends full engagement with the local community to ensure that residents are aware of works which are planned for their area and can plan for expected disruption. The EHS is satisfied that if all mitigation measures are fully implemented, the impact of noise and vibration on local receptors should be minimised and in turn, public health will be protected.

5. The applicant has advised that bedrock is likely to be encountered at variable depths along the entire route and there may well be areas of contaminated soil or fill also. The CEMP must contain detailed control and disposal measures in the event of encountering contaminated soil or fill during excavation works. Similarly, the applicant must consider the impact on local receptors if additional rock-breaking equipment is required to excavate limestone bedrock. Mitigation measures must minimise the impact of noise and vibration on local receptors.
6. The EHS advises that the applicant identify all private wells along the proposed development prior to the commencement of any works. Specific control measures must be agreed with the Board to ensure that there is no adverse impact on these water supplies during the construction.
7. The applicant must take climate change into consideration during every step of the development. The Board should require the applicant to use any renewable energy technologies if available during the construction phase and to continuously investigate and implement any proven construction technology / initiative which reduces the production of greenhouse gases.
8. The applicant proposes to provide temporary construction compounds for a period of up to 42 months. The applicant must ensure a potable water supply is provided in staff welfare facilities and this supply must be in compliance with the EU (Drinking Water) Regulations, 2023. All waste and wastewater generated at these temporary facilities must be appropriately stored and disposed of to prevent any nuisance arising.

5.2. **Public Submissions**

5.2.1. Mr. Patrick G. Murphy (c/o Land and Utility Compensation Consultants Ltd.):

- The observer has not consented to the inclusion of his lands in the application and objects to the development of same in the manner proposed.
- Given that the applicant has not provided the written consent of the observer or any other affected landowner contrary to the requirements of the Planning and Development Regulations, 2001, as amended, the application is invalid.

- Neither the applicant nor its contractor (the Electricity Supply Board) have been afforded any exemption from the requirement of the Planning and Development Regulations, 2001, as amended, to provide the written consent of the owners of the development lands. In this regard, it should be noted that although the Planning and Development (Amendment) (No. 2) Regulations, 2022 [S.I. 565/2000] exempt Irish Water from the requirement to submit the written consent of the landowner when making a planning application (please refer to Circular Letter PL 09/2022 as issued by the Department of Housing, Local Government and Heritage), no such exemption is in place for either the applicant or the ESB. Therefore, in the absence of the written consent of the landowner, it is reiterated that the application is invalid.
- Neither the applicant nor the ESB hold any exemption from the requirement to provide the names and addresses of the owners of the development lands.
- No details have been provided of the statutory powers which purportedly afford the applicant the right to lodge the subject application and / to carry out the proposed development.

  In those instances where the proposed development requires, inter alia, the permanent acquisition of land and the provision of access tracks, neither the applicant nor the ESB has sought or received the consent of the Commission for Regulation of Utilities for the acquisition of the lands in question. The 'confirmation' in the public notices that the applicant is seeking permission *"with the consent and approval of the Electricity Supply Board"* is meaningless. By extension, the applicant / ESB does not have the statutory consents necessary to carry out the proposed development.

  Furthermore, while the ESB may hold the statutory power to acquire land and / or an easement across lands, the exercise of such powers is subject to the prior approval of the Commission for Regulation of Utilities. At the time of the making of this application, neither EirGrid nor the ESB has made an application to or received consent from the Commission for Regulation of Utilities so as to allow for the exercise of powers of acquisition for land necessary to carry out the proposed development.

Where the proposed development requires the acquisition of third-party lands, including those in the ownership of the observer, the process of acquisition must be complete before the lodgement of a planning application as neither EirGrid nor the ESB can currently claim any interest in the lands the subject matter of the application.

- The Board should request the following further information from the applicant:
  - The specific statutory provisions that allow the applicant to lodge the subject application on third-party lands in the absence of the written consent of the relevant landowner.
  - Confirmation as to whether the applicant intends to compulsorily acquire the observer's lands and the statutory provisions allowing for such an acquisition.
  - Identification of those statutory powers available to the ESB as referenced in the application form.
  - Identification of those statutory powers that allow the applicant to omit supplying the names and addresses of the owners of the lands the subject matter of the application.
  - Identification of the statutory provisions that have allowed the applicant to lodge the subject application in advance of the intended compulsory acquisition of the necessary lands and / or property rights.
- No surveys have been conducted of the observer's lands to inform the preparation of the Natura Impact Statement and the application generally.
- In the absence of detailed surveys of existing services that will be crossed by the proposed development (and any diversions required), the Board does not have adequate information before it to make an informed decision.
- The proposed development will be located within the floodplain of the River Liffey and other watercourses, however, the applicant has not submitted the necessary flood mapping and / or flood risk assessment to ensure that the works involved will not adversely impact on rivers and watercourses. Similarly, no information been provided as regards the potential impact of flooding on

sections of the proposed 400kV line. Accordingly, there is inadequate information before the Board to allow a determination of the application.

- In relation to the proposed routing of the underground cabling through the observer's land, although the submitted particulars indicate that a "*Best Performing Option*" is available on the western side of the River Liffey, this route was not selected as *"Concerns were raised about the cable route passing through the gardens of two residential properties"*. The proposed cable routing through the observer's land requires the crossing of two bridges over the River Liffey (the recently constructed bridge along the Sallins bypass and the bridge at Millicent), however, there has been no assessment of these bridge crossings, with particular reference to the bridge at Millicent which is an older structure and does not have the capacity to accommodate the proposed development. Furthermore, while the explanation for not choosing the 'best performing option' refers to a desire to avoid imposing on private gardens, there are a number of such gardens along the route which are equally affected by the proposed development.
- With respect to the 30m wide 'construction swathe' seemingly proposed on the observer's lands (as shown on Drg. No. 321084AH-JAC-ZZ-XX-DR-Z-2208), the observer objects to the wholescale excavation of his property in this manner. Neither the applicant nor the ESB have any statutory power that would allow for the acquisition of the lands in question for use as a 'construction swathe', even on a temporary basis.
- The applicant should be requested to detail the statutory power that allows it (or its contractor) to make an application for a 'construction swathe' on privately owned land and to acquire said land for that purpose.
- The plans and particulars do not identify the significant quantity of spoil that will have to be removed from both the public road and privately owned land as a result of the proposed development. It is estimated that the excavation of the cable trench could generate approximately 119,250m^3 of spoil requiring disposal 'off-site' (which also equates to a volume of material in excess of 100,000m^3 being imported onto the public road and privately owned land). The excavation and disposal of this quantity of waste material along with the

importation of further material to the development site requires Environmental Impact Assessment.

- There has been no assessment of the traffic impact of the proposed development on the surrounding road network (with several of the affected roads being of insufficient width to allow for the installation of the proposed ducting and / or chambers). The environmental impacts arising from the disturbance to traffic, particularly on larger roads such as the recently constructed Sallins Bypass, must be identified and assessed.
- No alternative solutions have been proposed by the applicant. The Board is obliged to consider alternative development options, including alternative underground and overhead routes. In the absence of any such alternatives, it is not possible for the Board to assess the proposal in the context of proper planning and sustainable development.

5.3. Planning Authority(s)

5.3.1. Kildare County Council:

- The Council welcomes the proposed development and acknowledges that it will help meet the Government's Climate Action Plan target of up to 80% renewable energy generation by 2030. It is noted that the proposed development will enhance the network and provide capacity to connect new demand for electricity to support economic growth in the area and to connect new renewable generation to help meet Climate Action Plan targets.
- The Kildare County Development Plan, 2023-2029 recognises the importance of providing a strong electricity transmission network for the environmental, social and economic viability of the county. It is an objective under **EC O71** to *"Support and facilitate the Kildare-Meath Grid Upgrade (also known as Capital Project 966) to enable further renewable energy generation in line with the Government's target of 80% renewable energy generation by 2030"*.
- The Council considers the Maynooth 220kV and Dunstown 400kV substations to be of regional significance and supports any reinforcement of the Greater Dublin Area between same. Therefore, it will support and facilitate the requirements of EirGrid where it is proposing to enhance or upgrade existing

facilities or networks or to provide new infrastructure subject to landscape, residential amenity, and environmental considerations.

- The proposed development is supported by the following policies and objectives of the County Development Plan:
  - **EC P19**: Support the development, reinforcement, renewal and expansion of the electricity transmission and distribution grid to provide for the future physical and economic development of Kildare Such projects shall be subject to AA screening and where applicable, Stage 2 AA. The developments will have regard for protected species and provide mitigation and monitoring where applicable.
  - **EC O64**: Support and safeguard the efficient and reliable supply of electricity to all homes and businesses in County Kildare.
  - **EC O65**: Support the reinforcement and strengthening of the electricity transmission and distribution network, including the installation of Battery Energy Storage System plants, Synchronous Condenser plants, and associated dispatchable power plants associated with high energy users, to facilitate planned growth and transmission/distribution of a renewable energy focused generation, at appropriate locations and in consultation with relevant stakeholders, where they are adjacent and/or proximate to the grid network
  - **EC O68**: Require that all electricity lines of 38kV and over, comply with all internationally recognised standards with regards to proximity to sensitive receptors including dwellings, nursing homes, hospitals, other inhabited structures and schools/crèches.
  - **EC O69**: Support the statutory providers of national grid infrastructure by safeguarding strategic corridors (where strategic route corridors have been identified) from encroachment by other development, that might compromise the provision of energy networks.
  - **EC O70**: Facilitate the development of grid reinforcements including grid connections and a trans-boundary network into and through the county and between all adjacent counties. Such projects shall be subject to AA

screening and where applicable, Stage 2 AA. The developments will have regard for protected species and provide mitigation and monitoring where applicable.

- **EC O72**: Require that in all new developments, local services such as electricity shall be located underground. Multiple services shall be accommodated in shared strips underground and access covers shall be shared, where possible.

- The Board is requested to note the comments and recommendations received from various departments of Kildare County Council (as appended to the submission). In particular, cognisance should be taken of the following:

  Transportation:

  - Following consultation with the Kildare National Roads Office, it has been agreed, subject to detailed design approval, that the Sallins Bypass will be utilised for part of the cable route (which will generally follow the footpath along the eastern boundary of the road).

  - With respect to any proposed routing along bridges, it is important that the cable installation methodology does not impact on the integrity and performance of the bridges in any way.

    Bridges of Sallins Bypass: The applicant should be conditioned to carry out the work on each bridge as per discussions with Kildare County Council and to liaise with and obtain all necessary approvals from the Local Authority for the installation of ducts prior to the commencement of works. The applicant's proposals for the crossing of structures on the Sallins Bypass must not impact on the integrity, performance, long term durability or aesthetics of the structures or their components.

    Irish Rail Bridge: The agreement was to develop a solution using the existing pipe that transverses through the bridge in conjunction with Irish Rail. Kildare County Council has not agreed to the use of the pipe and the applicant was made aware of the agreement in place between the Council and Irish Rail. EirGrid will need written permission from Irish Rail for use of

this pipe and this agreement will need to be in place before construction commences.

To date, no viable alternative has been presented for crossing the Cork-Dublin Railway Line on the Sallins Bypass in the event that (a) the existing pipe is not an option and (b) approval is not received from Irish Rail.

- *Proposed Temporary Construction Compound and Laydown Area on Canal Road (parallel to the Sallins Bypass):*

  The Kildare National Roads Office is not in support of this as a compound location (even on a temporary basis). Direct access will not be possible off the Sallins Bypass and it is not felt that the Canal Road is suited to an increased volume of HGVs or heavy loads. Access to Canal Road would need to be either via Sallins Village or the Osberstown Road, neither of which may have the capacity to cater for an increase in traffic or be suitable for wide or heavy loads (noting that the proposed works will involve abnormal loads). Concerns arise as to how HGVs, or even smaller vehicles, would take the junction from the Osberstown Road onto Canal Road. It is not considered that any access, even temporary, from this land onto the Sallins Bypass Carriageway will or should be permitted. Traffic restrictions would be essential. The old railway bridge on Canal Road has both height and width restrictions. It is further noted that the levels of the lands south of the bridge is more than 2m above the level of the footpath in that area, and currently has no road entrance. The land to the north contains a wide-open drain and is part of the attenuation area (used for road drainage) that is under the management of the Naas MD. Any reduction in the level of this land or alterations to the embankments may impact the railway and would need written agreement from Irish Rail as it is parallel to the railway tracks.

- *JB53*: There are concerns about the location of this joint box due to the existing road restraint system. The works should have no impact on the integrity of the road restraint system at this location or any other location along the length of the works.

Parks, Conservation, Water Services and Environment Departments:

- The developer should retain the services of a qualified arborist as an arboricultural consultant for the entire period of construction activity and incorporate SuDS where feasible in accordance with the County Development Plan, LAPs, GDSDS, Nature-Based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas – Water Sensitive Urban Design Best Practice Interim Guidance Document and CIRIA SuDS Manual.
- The proposed development is satisfactory to the service departments, subject to conditions.

5.3.2. **Meath County Council (16th June, 2023):**

The contents of an initial submission dated 16th June, 2023 can be summarised as follows:

- The Board is requested to note the comments / reports received from various departments of Meath County Council (as appended to the submission):

  Environment (General):

  - Notes that most impacts will occur during the construction and decommissioning phases; will be transient and short-term; and can be addressed through the Construction and Environmental Management Plan (CEMP).
  - The applicant will be required to develop a Construction and Demolition Waste Management Plan (WMP) in accordance with national guidance. Any proposal to remove material from the site for reuse, recovery, recycling and / or disposal should be carefully considered in the CEMP and WMP. The applicant should also be reminded of its obligations under the Waste Management Act, 1996, as amended, with regard to the control of waste, importation of soils etc.
  - The CEMP is required to address extremes of weather and possible impacts on receptors and mitigation.
  - Both the CEMP and WMP are to be treated as live documents.

- In the event of a grant of permission, a series of conditions are recommended for inclusion as regards the CEMP, WM, dust emissions etc.

Environment (Flooding & Surface Water):

- The proposed development can be classified as 'highly vulnerable development' by reference to '*The Planning System and Flood Risk Management Guidelines for Planning Authorities'*.
- Although most of the proposed development is located in Flood Zone 'C' for fluvial flooding, there are localised areas close to watercourses and / or partially situated in Flood Zones 'A' & 'B'.
- The Site-Specific Flood Risk Assessment provided with the application has applied the 'Justification Test' and states that the proposed development will not result in an increase in flooding elsewhere or any floodplain loss.
- There is no objection to the proposal, however, several conditions are warranted in the event of a grant permission e.g. a prohibition on the stockpiling of material within Flood Zones 'A' & 'B'.

Transportation (General):

- A Road Opening Licence will be required for works within the public road.
- The works will result in delays to road users with spillover to adjacent roads.
- There is no objection to the proposal, however, in the event of a grant of permission, a series of conditions are recommended for inclusion.

Transportation (Public Lighting):

- No details have been provided for lighting poles despite the reference to same in the Planning Report. Further information regarding the proposed lighting design is required as any external lighting must demonstrate that obtrusive light is mitigated.

Archaeology:

- The submitted details comply with an established Code of Practice with the National Monuments Service.

- Appropriate map regression analysis is advised as this will identify buildings, structures, previous county boundary markers and other historic features.
- No images have been provided to demonstrate the completeness of the site walkover / drive.
- The archaeologist has estimated that c. 32 No. hectares of greenfield impact will occur, however, this is not stated in the documents submitted.
- Route chainage should be shown on all heritage mapping.
- The impact identification and mitigation is generally complete, however, some sites are missing from the proposed mitigation text.
- It is unclear if the suitability of proposed locations for archaeological geophysics has been established and an archaeo-geophysicist should develop an Archaeological Geophysical Specification and the results of the survey should feed into the test-trenching detailed layout. Advance archaeological trial trenching and any follow-up excavation areas come under the aegis of the CEMP.
- In the event of a grant of permission, a series of conditions are recommended for inclusion.

Heritage Officer:

- Refers to the pre-planning consultations and identifies the need to consider archaeology, protected structures, environmental designations, clearance of vegetation / hedgerows etc.

Uisce Éireann / Irish Water:

- Refers to an existing watermain located between Chainage 350 and Chainage 6000 along with the need for written agreement to be reached with Irish Water and Meath County Council, prior to construction of ducting, in relation to the proposed location of ducting within the public road relative to existing water infrastructure.

- The proposed development is acceptable by reference to the Meath County Development Plan, 2021-2027 and is also consistent with regional and

national planning policy, including the measures outlined in the Climate Action Plan, 2023.

- The proposed works will take place in rural Co. Meath and within existing road infrastructure. Consideration has also been given to the applicable land use zoning objectives of the Kilcock Environs where utilities are ‘permitted uses’.
- At Chainage 15250-15500, the proposed cable route extends beyond the planning application boundary to Waterbody (WB14). The Board is invited to consider whether works are proposed beyond the red line boundary.
- Having reviewed the potential impact of the proposed development on biodiversity as set out in the Planning and Environmental Considerations Report, it considered that the significant hedgerow removal proposed could have a significant local impact on ecological corridors (protected under Article 10 of the Habitats Directive). These would be of ‘county importance’ and provide several ecosystems services. Such sites improve the ecological coherence of sites protected for nature conservation. In the event of a grant of permission, it is recommended that a condition be imposed requiring the following to be agreed in writing with the Planning Authorities:
  - Specific details of species which shall be native to the area;
  - Planting locations;
  - Timescale of planting; and
  - Programme for replacement planting in the event of failure.
- An Invasive Species Eradication & Management Strategy with monitoring post completion of works given the potential for the construction activities to import terrestrial or aquatic invaders is required.
- In relation to soils, geology and hydrogeology, it is recommended that a condition be attached to any grant of permission requiring any works in an area associated with a regionally important bedrock aquifer to be carefully conducted.

- The PECR has listed the archaeological monuments in Co. Meath and the Board is invited to consider the specific recommendations of Meath County Council's Archaeologist.
- The Transportation Department has no objection to the proposed development, subject to conditions.
- A Road Opening Licence is the appropriate mechanism for consideration of the detailed construction process.
- The recommendations of the Transportation Dept., Environment (General), and Environment (Flooding) will assist the Board in its assessment of the proposed development.
- In the event of a grant of permission, the Board is requested to impose a condition requiring implementation of the mitigation measures set out in Section 19 of the PECR.
- Having reviewed the screening for Appropriate Assessment and Natura Impact Statement, the Board is requested to require implementation of the mitigation measures set out in the NIS.
- There is no objection to the proposed development from a flood risk management perspective.
- In general, the proposed cable route design and the measures for the reinstatement of roads infrastructure are acceptable, subject to adherence to the requirements of the Transportation and Environment Departments of Meath County Council.
- A large amount of hedgerow / trees will be removed to facilitate the development and this will impact on the landscape of the area. Accordingly, it is recommended that specific details in relation to the proposed mitigation and compensatory planting be agreed in writing with the Planning Authority.
- Given the nature of the development, fire safety may need to be considered and the applicant is advised to consult with the Fire Authority.

- With regard to traffic and transportation considerations, the Board is invited to consider the recommendations of the Transportation Department of Meath County Council.
- The Board may wish to consider the observations of Uisce Éireann as regards water services utilities. Consideration must be given to the existing services within roads infrastructure which must not be adversely affected by the proposed development.
- The applicant should be required to adhere to Inland Fisheries Ireland guidelines on protection of fisheries during construction works in and adjacent to waters, and all works should be supervised by an Environmental Clerk of Works and the Project Hydrologist.
- The proposed development is supported by national, regional and local planning policy, however, it must also be appropriate from an environmental, technical and visual perspective etc.
- The works within the confines of the Woodland substation and existing roads infrastructure will have minimal impact following the completion of construction. A large amount of hedgerow and trees will be required to be removed and this will affect the local landscape and will impact on ecological corridors.
- Having regard to the report of the Transportation Dept. and the conditions recommended therein, the proposed development will not have a negative impact on access or considerations in the area.
- Notwithstanding the proposal to underground the 400kV cable, the works involved will alter the local landscape through the removal of hedgerow and trees.
- The Board is the competent authority for the purposes of Environmental Impact Assessment and Appropriate Assessment.
- Given that the proposal involves works with the confines of the existing Woodland substation the Board is requested to impose a condition requiring payment of a development contribution in accordance with the Meath County Council Development Contribution Scheme, 2016-2022.

- A condition should be imposed requiring the lodgement of a cash deposit / bank bond or other security with the Planning Authority to secure the satisfactory reinstatement of the site upon cessation of the project.
- Following an examination of the submitted plans and particulars in the context of national, regional and local planning policy, and having regard to the contents of the reports prepared by Irish Water and internal departments of Meath County Council, it is recommended that permission be granted for the proposed development, subject to 28 No. conditions. These conditions are generally of a standardised format and relate to issues including construction management, waste management, environmental protection, noise & dust emissions, landscaping, and development contributions, however, the following conditions are of note:
  - Condition No. 2: Refers to the appointment of a Community Liaison Officer for all stages of the development.
  - Condition No. 3: Requires the implementation of all the mitigation and monitoring measures identified in the Planning and Environmental Considerations Report, Natura Impact Statement, Construction Environmental Management Plan, and the remaining particulars submitted with the application, except as may otherwise be required in order to comply with other conditions.
  - Condition No. 4: Requires the appointment of a persons(s) with appropriate ecological, hydrological and construction expertise such as an Environmental Manager / Ecological Clerk of Works and Hydrologist to ensure the implementation of all mitigation and monitoring measures.
  - Condition No. 8: Refers to the preservation and protection of archaeological heritage which includes the following requirements:
    - The appointment of an archaeological geophysicist to review those areas proposed for advance archaeological survey and to inform the most suitable inspection methodology.
    - To engage the services of a suitably qualified archaeologist to prepare an Archaeological Strategy Document to cover the ‘known

or presumed' heritage locations and to provide additional details as regards the approach to be taken to the remaining 'rest of the site' greenfield areas. This Strategy is to incorporate test trenching and monitoring provisions as necessary.

- Condition No. 9: Specifies a series of requirements relating to roads / traffic considerations, including the submission of roads surveys (pre and post construction), the agreement of any works required to achieve adequate sightlines at the various works access points, the approval of a Construction Traffic Management Plan, and the submission of a phasing plan.
- Condition No. 11 – Specifies certain requirements relating to flood risk management, environmental protection, and the protection of water quality. Notable examples include:
    - Launch and reception pits for all trenchless (HDD) crossings to be located outside the identified Flood Zones 'A' & 'B' with details to be agreed with the Planning Authority prior to the commencement of development.
    - The siting of all cable jointing pits to be located outside Flood Zones 'A' & 'B'.
    - The proposed cable route to be at least 15m from the upstream side of the R158 Regional Road where the proposed flood defence embankment is to be located.
    - All works to be carried out in accordance with Inland Fisheries Ireland's *'Guidelines on Protection of Fisheries during Construction Works in and adjacent to Waters, 2016'*.

5.3.3. **Meath County Council (18th June, 2024):**

Following the receipt of significant additional information from the applicant, including an Environmental Impact Assessment Report, a further submission dated 16th June, 2024 was received from Meath County Council, the contents of which can be summarised as follows:

- The updated Appropriate Assessment Screening Report differs from that initially submitted although its conclusions remain the same, namely, that a Natura Impact Statement is required (i.e. in the absence of mitigation measures, it cannot be excluded, based on objective scientific evidence, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on the Rye Water Valley / Carton SAC).
- The updated Natura Impact Statement includes additional information while the mitigation measures are more detailed in the context of an Ecological Clerk of Works for specific locations where interventions have been identified. The Board is requested to consider this revised NIS.
- The Environmental Impact Assessment Report was prepared in response to the requirements of Class 1(a) of Schedule 5, Part 2, of the Planning and Development Regulations, 2001, as amended, as the proposed works include for the removal of hedgerow exceeding a 4km length of field boundary.
- The need for the proposed development is acknowledged along with its wider benefits in terms of meeting Climate Action Plan targets and ensuring security of supply etc.
- The EIAR has considered alternatives as regards the need for the development, the most appropriate technology, and the most suitable location based on high-level route alternatives and a route option assessment. The selected option was subsequently refined to reduce potential environmental impacts etc.
- In terms of biodiversity, although the details provided in the EIAR generally reflect those set out in the Planning and Environmental Considerations Report, the following is noted:
    - Although the PECR referred to c. 95-190 No. trees and 4.08km of hedgerows and trees being permanently removed as a result of the proposed development, the EIAR refers to temporary losses where construction works will be followed by replanting; and permanent losses in areas such as at joint bays and above the cable (referred to as the permanent easement). The EIAR further states that 348 No. trees will be felled (equivalent to 4% of the trees in the tree study area which includes

the site and a 30m buffer) with a further 710 No. trees potentially at risk (equivalent to 8% of trees in the tree study area). Therefore, 1,058 No. trees are 'at risk' of removal. In addition, 3 No. significant tree features are identified as being at risk although these are not veteran or ancient and are not the subject of Tree Preservation Orders.

The EIAR states that:

- 3.2km of hedgerow will be temporarily lost and 0.7km permanently lost (equivalent to 2.1% of the hedgerows within the application site) and;
- 1.1km of treelines will be temporarily lost and 0.8km permanently lost (3.1% of the hedgerows within the application site).

- It will not be possible to replant trees and hedgerows above joint bays and permanent access tracks, however, construction compounds, temporary access tracks and passing bays can be replanted. Native Irish species will be used for replanting to reflect felled specimens as much as possible.
- An 'Off-Site Hedgerow Compensation Strategy' is proposed to deliver species-rich planting outside of the application site at a minimum rate of 130% so as to provide for a net gain over any habitat loss. This is to be delivered by the ESB in consultation with EirGrid.
- The Board is advised of the East Meath to North Dublin 400kV Project pending decision (ABP Ref No. ABP-319422-24) which refers to a 'Draft Over Cable Planting Strategy' wherein it is suggested that some (over cable) planting may be possible in the future. However, it is acknowledged that the suitability of such a proposal in the context of electricity infrastructure has yet to be determined and is not a viable option at present.
- With respect to soils, geology and hydrogeology, the details provided in the EIAR appear to reflect those previously submitted in the PECR. It is further noted that reference is also made to the cable trench route crossing multiple areas with a very high / high potential for the extraction of rock, sands and gravels, although any potential losses will not be significant.

- In reference to the risk of major accidents and disasters, the EIAR has indicated that there are no features in the surrounding area that could interact with the proposed development as to give rise to any significant effects.
- From a climate perspective, increased flooding and temperatures will not affect the proposed development while any greenhouse gas emissions generated by the proposal are not expected to be significant. Although an estimate of the level of renewable energy consequent on the proposed development is not possible, it has been stated that it will have a positive effect on climate change during the operational phase.
- The details provided in the EIAR as regards 'Population & Human Heath', 'Air Quality', 'Noise & Vibration', 'Hydrology', 'Archaeology, Architectural Heritage and Cultural Heritage', 'Traffic and Transport', 'Agronomy and Equine (Agriculture and Horses)', 'Material Assets', 'Waste', 'Landscape and Visual', and 'Cumulative Impacts and Environmental Interactions', appear to reflect those set out in the original PECR.
- The Board is requested to consider the following:
    - The potential cumulative impact arising from the proposed removal of 5.4km of hedgerow and the felling of at least 1,522 No. trees between the subject development and the East Meath – North Dublin 400kV and Substation Project (ABP Ref. No. ABP-319422-24) and any associated impact on ecological corridors (protected under Article 10 of the Habitats Directive).
    - In the event of a grant of permission, the imposition of a condition requiring the submission of the following items for the written agreement of Meath and Kildare County Councils:
        - Planting locations;
        - Specific details of species native to the area;
        - A timescale for planting; and
        - A programme for replacement planting in the event of failure; or

- An option for agreeing an alternative measure which benefits an action in the Local Biodiversity Action Plans of each local authority.

- Consideration of the All-Ireland Pollinator Plan in the reinstatement or re-establishment of hedgerows / tree corridors along the proposed route, particularly in the context of the use of native species of local provenance. It is further recommended that responsibility for the establishment and management of plantings should rest with the applicant for a minimum of 7-10 years.
- The attachment of a condition requiring the preparation of an 'Invasive Species Eradication and Management Strategy' which includes for post-construction monitoring (given the potential for terrestrial or aquatic invaders to be spread or imported during the construction activities).
- Having regard to the proposed hydromorphological modifications, the Board may wish to consider whether an assessment under Article 4.7 of the Water Framework Directive is required to ensure that there will be no deterioration in WFD status or jeopardising of the attainment of good water status etc. This would also be relevant in the context of the East Meath – North Dublin 400kV Project (ABP Ref. No. ABP-319422-24).
- The contents of the accompanying reports prepared by the County Archaeologist and Transportation Department of Meath County Council along with the conditions recommended therein:

  County Archaeologist:

  - The EIAR complies with EirGrid's established Code of Practice with the National Monuments Service as regards archaeological and heritage considerations.
  - Ideally, the chainage should be added to the cultural heritage mapping with a single set of maps showing all heritage features, greenfield zones and in-road zones. This should be accompanied by a table of mitigation measures arranged by chainage so as to clarify the extent of any specific mitigation measures and those areas to be left subject to blanket testing or other advance works.

- The advance geophysical surveys should be completed by a qualified professional. Any areas found to be unsuitable for survey should be clarified – preferably before planning but this could also be done post-planning.
- In relation to the advance trial trench testing surveys: typically, if these are of a suitable coverage and at a density of c. 12% of the site area, and nothing of archaeological significance is found, then no further archaeological works would be required; subject to agreement with the National Monuments Service. This should be clarified as a strategic approach that incentivises advance archaeological works and limits the areas that will need to be monitored during construction. This type of *'sufficient advance survey works leads to no construction monitoring'* measures may particularly apply to areas associated with water bodies, where advance works often find nothing, but still recommend monitoring.

Transportation (Public Lighting):

- Reiterates the absence of a lighting design with the further information submitted.

Transportation:

- Works within the public road will require a Road Opening Licence.
- The proposed works will cause delays which will lead to drivers taking alternative routes resulting in additional traffic loading on adjacent roads. Pre and post works surveys of the adjacent local roads should be carried out to identify the impact of the diverted traffic with the applicant being required to pay a contribution towards the cost of any road repairs.
- The applicant should be required to agree the works necessary to achieve adequate sightlines at all access points onto the public road network.

- Given that most of the works will occur along regional roads, the phasing of the works should be agreed with the Roads Authority with permanent reinstatement carried out without delay.
- Recommended conditions include:
    - The agreement of a Construction Stage Traffic Management Plan.
    - A requirement to monitor traffic queueing times / delays at each works location and to record traffic flows in the local road network in agreement with the planning authority.
    - Pre and post construction road surveys.
    - The investigation / implementation of an alternative to the construction of permanent reinforced joint boxes due to the significant impact on the public road network and future development potential.
    - The agreement of various design details and construction methodologies as regards the proposed joint bays.

5.4. Applicant's Response

In correspondence dated 1st August, 2023 the applicant responded to the submissions initially received from Uisce Éireann, the Health Service Executive, Transport Infrastructure Ireland, Kildare County Council, Meath County Council, and Mr. Patrick G. Murphy, the contents of which can be summarised as follows:

5.4.1. Response to the submission received from Uisce Éireann:

- Interfaces between the proposed development and Uisce Éireann assets will be designed in detail following the post-consent completion of confirmatory site investigations and will be undertaken in agreement with Uisce Éireann prior to construction.
- Specific construction methodologies and principles will be agreed prior to construction, building on the information submitted with the application.

5.4.2. Response to the submission received from the Health Service Executive:

- There is no requirement or plan for the monitoring of Electro-Magnetic Fields (EMF). The design of the transmission infrastructure ensures that the strength of electric and magnetic fields generated during the operational phase will comply with the International Council on Non-Ionising Radiation Protection and EU guidelines on exposure of the general public to EMF.
- The recommendations of the HSE, especially those relating to air and noise, and are already largely in place as per the submitted Planning and Environmental Considerations Report (PECR) and the Construction and Environmental Management Plan (CEMP).
- Working hours have been assessed as part of the PECR. It is anticipated that construction will occur during normal working hours (Monday to Friday, 07:00 – 19:00, and Saturday, 07:00 – 14:00). Some instances of localised night-time working may be required e.g. to facilitate traffic management, however, any works outside of these times will be agreed in advance with the Local Authority.
- The CEMP outlines how EirGrid and the Contractor will appoint Community Liaison Teams to ensure the successful delivery of the project insofar as the relevant communities are concerned. EirGrid's Community Liaison Team and Agricultural Liaison Officers have already been active on the ground for a considerable period of time in the project development stages.
- Noise and vibration impacts are addressed in the PECR which also includes mitigation measures.
- With regard to private wells, it has been determined that there will be no significant effects on private or public water supplies due to the nature of the proposed construction and the mitigation measures. Consultations with affected landowners have not identified any wells in proximity to the proposed route but further consultation will be undertaken prior to commencing any main construction activities.
- In relation to climate change, the applicant seeks very opportunity to reduce the environmental footprint of its activities and that of its proposed projects. Renewable energy technologies will be utilised as far as is practicable during the construction phase.

5.4.3. Response to the submission received from Transport Infrastructure Ireland:

- Prior to commencing main construction activities, further discussions will be held with roads authorities and those responsible for motorway maintenance as regards design details, timing and other matters.
- TII was provided with technical notes to address outstanding queries as part of pre-application consultations. All relevant design details and methodologies are contained in the planning application.
- The applicant works closely with TII on other similar projects and / or SID projects. It agrees with the spirit and intent of the proposed conditions recommended by TII, which focus on further discussions of detailed design post-consent and prior to the main construction of the proposed development.

5.4.4. Response to the submission received from Kildare County Council:

- <u>Sallins Bypass Bridges:</u>
  - The applicant will continue to engage with the Council to address and agree the detailed design of the Sallins Bridge crossings.
  - It is believed an agreement in principle is in place as to the design and both parties have agreed that further consultation & agreement will be required.
  - The level of detail provided is appropriate for the planning application and will be developed further in the post-consent phase.
  - The applicant will liaise with and obtain the necessary approvals from TII's Leinster Regional Management for the crossing of all TII structures.
- <u>Sallins Bypass Railway Crossing:</u>
  - Irish Rail and the Council have been consulted on the proposed crossing of the rail bridge. There is an agreement in principle for the use of the bridge subject to detailed design in the post-consent phase following confirmatory site investigations prior to the commencing main construction.
  - The applicant received a letter from Irish Rail dated 26th July, 2023 which states:

'CIE / Iarnród Éireann (Irish Rail) agree in principle and have no objection to the use of the existing vacant pipe / duct that traverses through the east wingwall of railway bridge structure UBC43A (Sallins Bypass bridge) as a means of crossing below the Dublin to Cork railway line at this location for the purposes of the proposed underground cable route described in your scheme. This agreement in principle is subject to agreement of terms, CIE Board approval, Licence Agreement and related engineering conditions'.

- <u>Sallins Bypass Canal Road Working Area:</u>
  - The location of this works area was the subject of detailed discussions with the Council and the applicant understands that all technical requirements have been met. In this regard, significant additional studies, including sightlines and auto-tracking, were provided to Kildare County Council.
  - Constructive engagement post-consent will ensure that any outstanding issues are addressed.
  - The working area will be used solely for works associated with the Irish Rail crossing. There will be no site offices or larger elements and the working area will have much less construction traffic when compared to the main compounds.
  - Use of the working areas alongside the railway line will be such as to minimise disruption to the Sallins Bypass. If these areas were not to be used, it would likely be necessary to close both southbound lanes of the bypass to provide a suitable working area with the result that traffic would have to be diverted through Sallins or a contraflow provided on the northbound carriageway.
  - Crossing of the railway line on the Sallins Bypass is of key importance and access to the working area will limit disruption to traffic flows on the Bypass. Impacts will be temporary.
- <u>Joint Bay 53:</u>
  - The design and location of this joint bay is considered suitable, however, any concerns in this regard can be resolved at the post-consent detailed

design stage and agreed with the Council. This approach will not affect the Board's assessment of the application.

- Landscape Effects:

  - The applicant is committed to retaining as many trees as possible and matters regarding replanting and / or compensation are outlined in the PECR. A minimum of 130% compensatory off-site planting will be delivered by the developer (ESB) in consultation with EirGrid resulting in a net gain of trees & hedgerows.

  - The applicant tis amenable to a condition requiring the appointment of an arboricultural consultant, however, it should be noted that the development is an underground linear infrastructure project primarily to be developed within the public road network.

  - The nature of the proposal as a largely in-road cable trench will mean that hundreds of roadside trees could be considered as "retained trees". The recommendation for a survey of trees post-construction is accepted, however, careful consideration should avoid the provision of unnecessary fencing at roadside locations.

  - The recommended condition on BS: 3998: 'Tree Work' is accepted. The applicant will ensure no vegetation clearance during the bird breeding or bat roosting seasons without prior agreement from the relevant planning authority. Emergency remedial works may be required by ESB in discharge of its functions, but these will be the exception.

  - The principle of the condition suggested by the Parks Dept. of the Council is accepted:

    'Landscape proposal shall ensure that all inter alia boundaries, entrances, open spaces, hedgerows, trees, lighting, planting are reinstated to pre-construction works condition and as per appropriate standards inter alia British Standards'.

    However, this may not always be feasible or practicable if mature trees require removal. If deemed necessary, the following revision is proposed:

'Landscape proposals shall ensure that, ***where practicable****, boundaries, entrances, open spaces, hedgerows, trees, lighting, planting are reinstated to pre-construction works conditions and as per appropriate standards inter alia British Standards****, or otherwise as agreed with the planning authority****'.*

In any event, further discussions will be held with the Council prior to commencing main construction activities with agreement sought during the detailed design stage.

- Construction within Roads:
  - Confirmatory site investigations will be completed prior to construction on the in-road sections of the works. The results will be discussed with the Council and detailed construction methods and remediation of the roads agreed. Any reinstatement will accord with the '*Guidelines for Managing Openings in Public Roads, 2017'.*
- Future In-Road Utilities:
  - The intention is to ensure that future developments can be accommodated as far as possible but in accordance with industry separation distances for utilities.
- Road Safety Audit:
  - A RSA is not required for a project of the nature proposed, however, if required, it may be sought by way of condition
- Proposed Conditions:

  A number of conditions are likely to be drafted requiring agreement of details between the developer and the planning authorities etc. prior to undertaking certain activities. However, use of the blanket phrase *"prior to commencement of development*" can cause challenges to a phased construction programme (usually comprising site investigation and enabling works, followed by main construction, with subsequent completion and reinstatement). This is because '*works'* are defined as including any act of construction with the result that early phase site investigation and enabling works comprise '*development'* and thus could be prohibited by the blanket phrase until relevant conditions are

discharged (despite such investigations being required to inform the detailed design in advance of main construction).

Consideration should be given to drafting of conditions which distinguish between the various phases of development e.g. *'prior to the commencement of any site investigations and / or enabling works*', *'prior to the commencement of main construction'*, or *'prior to the completion of the permitted development'*.

The rationale, spirit and intention of the conditions suggested by the Council is generally accepted and further discussions will be held and agreement sought during the post-consent detailed design stage (in the event of a grant of permission).

Several of the conditions suggested are overly specific and it is respectfully submitted that it would be appropriate for more general requirements for technical interface design matters to be agreed prior to commencing main construction activities.

The Board is requested to note the following:

- Condition No. 2: The proposed wording is unduly restrictive and could be applied to those works at some distance from school entrances that would have no impact. The following revision is suggested:

  *'**In-road** works to be completed only outside of school drop and collect hours **within 500m of a school entrance to the public road. This will be applied during term time only'.***

- Condition No. 5: Further discussions will be required and agreement sought as regards remedial actions required of the developer prior to commencing the main construction activities. Damage caused by the proposed construction will be remediated, however, remediation of existing defects prior to construction works fall outside the scope of the proposed development.

- Condition Nos. 7, 8, 9 & 10: Any written permission should be coordinated through the planning authority. It is normal practice for works to be agreed between the developer and the planning authority.

- Condition No. 11: Irish Rail and Kildare County Council have been consulted as regards crossing the Irish Rail Bridge on the Sallins Bypass. It is the applicant's understanding that it has an agreement in principle for use of the bridge from both the Council and Irish Rail, subject to detailed design following site investigations prior to commencing the main construction activities.
- Condition No. 16: The applicant is agreeable to the monitoring of in-road sections for the proposed cable route 12, 24 & 36 months post-construction. Remediation of any damage caused by the proposed development will also be carried out. With regard to haul routes, these could include all delivery routes from suppliers and, therefore, it is suggested that this aspect of the condition be subject to agreement with the planning authority and cover a period of 12 months post-construction.
- Condition No. 17: A standard condition should be applied i.e. that the form and amount of the security be agreed with the planning authority etc.
- Condition No. 20: The applicant will endeavour to ensure that there is no surface water runoff from the site onto the public road, however, as the construction area will include the public road, this may not always be possible.
- Condition No. 25: Construction of the proposed development will be undertaken in accordance with the Infrastructure Agreement 2006 between EirGrid and ESB as required by Regulation 18 of SI 445/2000.
- Condition No. 27: The issue of the Road Safety Audit has been addressed previously.
- Condition No. 30: Working Hours have been addressed previously.
- Condition No. 33: This can be addressed through the agreement of the CEMP prior to construction.
- Condition No. 37: It is not considered feasible to install a 125mm cable duct within the proposed cable trench and no such proposal has been included in the submitted design. It is also unclear if such a duct would be suitable for broadband connections. The applicant has no mandate to

provide commercial fibre or associated ducting on the project. Therefore, this condition should not be included.

- Condition No. 40: The proposed temporary construction compound and laydown area on the Canal Road parallel to the Sallins Bypass has been addressed previously.

- Flood Risk:
  - A Flood Risk Assessment has been provided as part of the PECR.
- Kildare County Council Environment Report:
  - Noise impacts have been assessed in the PECR and mitigation is proposed. It may be occasionally necessary to undertake emergency works that could exceed the suggested noise levels (e.g. dewatering of excavations at night). Further discussions will be held prior to commencing the main construction activities and agreement sought during the detailed design stage.

5.4.5. *Response to the submission received from Meath County Council:*

- CEMP:
  - A CEMP has been provided with the PECR. It will be treated as a live document and the contractor will add further details (but within the framework of the existing document).
  - A Construction Resource Wate Management Plan has been submitted.
- Lighting Poles:
  - No lighting poles are proposed in Co. Meath.
  - The only lighting poles proposed are within the Dunstown Substation in Co. Kildare.
- Archaeology:
  - The 2 No. conditions suggested by the County Archaeologist are acceptable.
  - Map regression analysis is presented in Chapter 13 of the PECR.

- Although photographs of all the areas accessed as part of the walkover survey and site inspection have not been provided, relevant images have bene submitted to illustrate any constraints and their setting in line with the *'Cultural Heritage Guidelines for Electricity Transmission Projects (EirGrid, 2015)*'.
- It is not considered necessary to re-submit the heritage mapping in order to show chainages on this occasion.
- It should be noted that CH_76 & LI_054 were identified in Appendix 13.2 of the PECR and mitigation at both sites identified. The proposed mitigation of archaeological excavation will be completed.
- Areas identified for archaeogeophysical survey will be reviewed and an Archaeological Geophysical Survey Specification reviewed by an archaeogeohysicist. The results of this survey will inform test excavations.
- Advance archaeological test excavation and any follow-up excavation areas will be agreed and included in the CEMP. This document will be finalised with the Council prior to construction.

- <u>Proposed Conditions:</u>

  The principle, spirit and intention of the conditions suggested by the Council is generally accepted and further discussions will be held and agreement sought during the post-consent detailed design stage (in the event of a grant of permission).

  Several of the conditions suggested are overly specific and it would be appropriate for a more general requirement for technical interface design matters to be agreed prior to commencing main construction activities.

  Consideration should be given to drafting of conditions which distinguish between the various phases of development e.g. *'prior to the commencement of any site investigations and / or enabling works'*, *'prior to the commencement of main construction'*, or *'prior to the completion of the permitted development'.*

  The Board is requested to note the following:

- Condition No 2: Both EirGrid and the Contactor will have Community Liaison Teams in place to coordinate with the public and to ensure the successful delivery of the project insofar as communities are concerned. The applicant's Community Liaison Team and Agricultural Liaison Officers have been active on the ground and will continue to have a presence.
- Condition No. 5: The issue of lighting poles has been addressed previously.
- Condition No. 6: No vegetation clearance will occur during the bird breeding and bat roosting seasons without prior agreement with the planning authority e.g. emergency remedial works may be required by ESB in discharge of its functions but these will be by exception.
- Condition No. 11: The proposed route follows the public road, which is, in some locations, within existing floodplains and, therefore, it is not possible for all joint bays to avoid Flood Zones 'A' & 'B'. A Flood Risk Assessment has been undertaken and no significant flooding impacts are anticipated.
- Condition No. 21: The working hours have been identified and assessed in the PECR. Any works outside these hours will only be undertaken with the prior agreement of the Council. Noise impacts have been assessed and mitigation proposed. It may be occasionally necessary to undertake emergency works that could exceed the suggested noise levels (e.g. emergency dewatering of excavations at night). Further discussions will be held and agreement sought during the detailed design stage.
- Condition No. 27: The proposed strategic infrastructure development itself is not of a class that benefits from the social infrastructure supported by Development Contribution Schemes. Furthermore, contributions under those schemes are attached to grants of permission made under Section 34 of the Planning and Development Act, 2000, as amended. There is no mechanism to attach such conditions to an approval granted under Section 182B.
- Condition No. 28: A standard condition should be applied i.e. that the form and amount of the security be agreed with the planning authority etc.

5.4.6. *Response to the submission received from Mr. Patrick G. Murphy:*

- Statutory Powers:

  - When seeking to develop on private land, the aim is to route the proposed cable with the agreement of landowners rather than by invoking any statutory powers. Extensive efforts have been made to meet / consult with affected landowners throughout the process. Selection of the proposed cable route was a carefully considered exercise with public and landowner consultation a key part of the process.

  - The application for the Kildare-Meath Grid Upgrade falls under the provisions of the Planning and Development Act, 2000, as amended, and specifically Sections 182A, 182B & 182E which relate to electricity transmission development.

    Article 22(2)(g)(i) of the Planning and Development Regulations, 2001, as amended, requires a planning application made under Section 34 of the Act to be accompanied by the written consent of the landowner. However, Article 22 does not apply to an application made under Section 182A of the Act and, therefore, does not apply to the subject application for approval.

    The extent, if any, to which landowner consent is required for the making of an application for the development of electricity "transmission" infrastructure was addressed in *North East Pylon Pressure Campaign Ltd. v. An Bord Pleanala [2017] IEHC 338*. That case involved a challenge to an approval granted pursuant to Sections 182A & 182B. An application for such an approval may only be made by an undertaker who intends to carry out development comprising or for the purposes of electricity transmission. The High Court rejected an argument that an application could only be lawfully made with the written consent of the owners of all of the lands upon which it was proposed carry out the development and held that, in contrast to the position in respect of a Section 34 planning application, there was no requirement to provide landowner consent in the case of an application for the development of electricity transmission infrastructure.

    The ESB has certain statutory powers which allow it to progress the development of electricity infrastructure in the interests of the common

good in the absence of landowner consent in accordance with the Electricity (Supply) Acts, 1927, as amended.

The subject application is being made by EirGrid for the purposes of "*transmission*" under Section 182A of the Act and the legal position as set out in *North East Pylon Pressure Campaign Ltd. v. An Bord Pleanala* clearly applies and there is no constraint to the making of the application *"by reference to landowner consent".* The decision in *North East Pylon Pressure Campaign* has confirmed that the requirement to obtain landowner consent "*is not applicable to a body such as EirGrid that is discharging a function in the public interest and common good"* having regard to the fact that ESB *"has the statutory power to acquire interests and having regard to the relationship between ESB and EirGrid under the internal electricity market regulations".*

- <u>Survey Access and Assessment:</u>
  - The applicant's agents were able to undertake direct and vantage point environmental surveys along the majority of the proposed route and a robust appraisal of the likely significant environmental impacts has been carried out.

    Obtaining baseline data included:

    - Desk-based assessments of existing published data sources;
    - Detailed analysis of high-quality OSI aerial photography and LIDAR orthophotography along the entire proposed cable route;
    - Walkover surveys and visual surveys from the public road along the proposed route; and
    - Avoidance of areas of potential ecological significance.

    The lack of access to Mr. Murphy's land has not undermined the assessment presented in the PECR and NIS.
  - There will be no adverse effects on the integrity of any European sites alone or in combination with other plans or projects considering the site's conservation objectives. The NIS contains information upon which it may be determined that all reasonable scientific doubt has been removed as to

the effects of the proposed development, along or in-combination with any other plan or project, on the integrity of the relevant European sites.

- Consideration of Utilities:
  - Utilities were considered as part of the routing process with further details provided in the PECR. It is acknowledged that further site investigations will be undertaken prior to commencing main construction activities to confirm the location of services. Extensive consultation with utility providers has already been completed and will be continued prior to commencing construction.
- Flood Risk Assessment:
  - The flood risk assessment provided in the PECR has concluded that there will be no significant flooding effects consequent on the proposed development. This conclusion has been confirmed in the submission of Meath & Kildare County Councils.
  - The PECR includes an assessment of surface water effects and concludes that there will be no significant impacts.
- Assessment of Alternatives – Millicent Area:
  - The route of the proposed development was originally on the western bank of the River Liffey before being changed to the eastern bank and an explanation for this change is discussed in the PECR.

    In summary, 6 No. route options were considered in the Millicent area. Ecological surveys identified protected species on the western bank of the River Liffey while the lands on the eastern bank are intensively farmed and less likely to contain the same species. Public consultation also established that two landowners were using a section of the cable route as residential gardens.

    The cable route does not use the historic Millicent Bridge and is located to the west of same thereby avoiding any impact. The use of Sallins Bypass and the River Liffey bridge have been discussed extensively with Kildare County Council and further liaison will take place during the final design stage.

The selected route option was chosen to avoid impacts on residential receptors (Chapter 4 of the PECR). There are no instances where residential gardens are perpendicularly crossed by the proposed development, however, there is one garden where the route will clip its corner and this is assessed in Chapter 16 of the PECR. The impact of this 'clipping' (at Chainage 11200) is not comparable to the more significant effect of a perpendicular crossing had the route along the western bank of the River Liffey at Millicent been selected.

From a planning and environmental perspective, there will be no significant impact of the affected land parcel. The proposed route has been designed to follow the western edge of the land while maintaining a suitable setback from the river's edge. While the proposed route will be within the floodplain of the River Liffey, it has been assessed that there will be no significant flood effects arising.

Overall, it has been determined that the proposed route on the eastern bank of the River Liffey (Mr. Murphy's land) was preferred to the western bank. This was because it avoids potential impacts to protected species and avoids crossing residential gardens. The proposed route was also preferred to other assessed options in the Millicent area, scoring better overall in the multi-criteria analysis that was undertaken.

- <u>Construction Width:</u>
  - The proposed cable trench is typically 1.5m in width. In off-road sections, a construction area of up to 30m in width has been allowed for all construction activities. This will include temporary haul routes and temporary storage of material excavated from the trench.
- <u>Excavated Material:</u>
  - The majority of material from the cable trench will be returned to the excavated area with any surplus needing to be taken off site. An assessment of the excavated material and the associated traffic is included in the PECR (along with a Construction Resource Waste Management Plan).

- The EIA screening report provided at Appendix 1.2 of the PECR concluded there was no requirement for EIA.

- Traffic Assessment:

  - A traffic assessment has been provided in the PECR with mitigation measures proposed to prevent or minimise the effects arising.

- Assessment of Alternatives:

  - Extensive consideration was given to technological and routing alternatives. This process followed EirGrid's 6-Step Project Development Road Map (as set out in Section 1.4 of the PECR).

    Chapter 4 of the PECR provides a summary of the assessment of technological and routing alternatives of the proposed development (the background reporting on alternatives is in Vol. 5 of the PECR).

  - There is no statutory or other requirement for EirGrid to propose or undertake a comparable level of assessment for any alternative options in respect of the project, including alternative underground and overhead routes, as has been undertaken in respect of the submitted proposal.

5.4.7. Following the receipt of significant additional information, including an Environmental Impact Assessment Report, further submissions were received from the Department of Housing, Local Government and Heritage, the Office of Public Works, Transport Infrastructure Ireland, and Meath County Council. In correspondence dated 29th July, 2024, the applicant responded to these submissions as follows:

5.4.8. *General Observations on Conditions Recommended:*

In response to the conditions recommended in several of the observations, it is submitted that some of the conditions recommend very specific works and / or compliance with sectoral specific technical guidelines. It is considered that such conditions are too detailed and / or specific at approval stage and it is suggested that it may be more appropriate for one or more conditions addressing general requirements for technical interface design matters to be agreed prior to construction of the proposed development.

5.4.9. *Response to the submission received from the Department of Housing, Local Government and Heritage:*

- Section 13.2.4 of the EIAR references a meeting held with the National Monuments Service during which the applicant provided an overview of how cultural heritage assets had been integrated into its assessment along with information about the design of the proposed development in the vicinity of Jigginstown Castle. The National Monuments Service did not then raise any specific concerns relating to Jigginstown Castle.
- Impact on the Monument:
    - With regard to the commentary that there will be a direct impact on the curtilage of the monument as defined by the Preservation Order (No. 3/2000), the EIAR identifies a direct impact on potential undiscovered archaeological remains within the curtilage of the monument as follows:

      'The proposed development is located within the area of the Preservation Order associated with the Jigginstown Castle complex (AY_38, AY_39, AY_40, AY_42, AY_43 & AY_44) and would have a direct impact on any archaeological remains that may be present within the lands required for the proposed development. The magnitude of this permanent impact has been assessed to be Medium and the significance of impact has been assessed to be Significant. Proposed mitigation that will be undertaken post-consent but in advance of construction will comprise archaeological geophysical survey and archaeological test trenching, undertaken by a suitably qualified archaeologist to inform the design of any wider archaeological excavation required. This aligns with mitigation measures presented in Section 13.5 of Chapter 13 of the EIAR'.
    - In reference to effects on the Jigginstown Castle complex itself (separate to the curtilage), the EIAR has identified indirect impacts during both construction and operation as follows:
        - During construction, one indirect impact of 'Slight' significance on Jigginstown Castle (AY_39) and impacts of 'Imperceptible' significance on five assets (AY_38, AY_40, AY_42, AY_43 & AY_44) that form the complex have been assessed, and these are presented in Appendix 13.2 of the EIAR.

- During operation, one indirect impact of ‘Imperceptible’ significance on Jigginstown Castle (AY_39) was identified, as a result of visual intrusion in the setting of this asset due to the presence of new infrastructure in the form of the concrete cap for Joint Bay 60 and access tracks. This impact is presented in Appendix 13.2 of the EIAR.
- As the access track and Joint Bay 60 would be largely screened by intervening buildings or trees along the eastern boundary of the complex, no impact on AY_38, AY_40, AY_42, AY_43 & AY_44 was identified during operation.

As a result of the indirect impacts identified, a series of mitigation measures are proposed in Section 13 of the EIAR to protect the monument. After the implementation of mitigation, no significant residual impacts are anticipated for the Jigginstown Castle complex.

- <u>Subsurface Remans:</u>
  - The EIAR has considered the survival of subsurface remains. On review of the sources identified in Chapter 13 of the EIAR, while Jigginstown Castle was likely situated within extensive grounds and gardens, no extant landscape features have been identified within the application site to the east of the castle. In addition, later disturbance from previous development and utilities is likely to have removed or damaged any features that may have been present. Nevertheless, this area was identified as having potential for the presence of unknown archaeological remains.
  - The EIAR has identified a direct impact on any previously unknown archaeological remains that may be present within the area required for the proposed development, including as a result of the excavation of temporary launch and reception pits for HDD.

    Mitigation will include a requirement for archaeological geophysical survey and archaeological test excavation to be undertaken post consent but pre-construction in all off-road sections required for construction. This will inform the design of any wider archaeological excavation required to mitigate the impact on any unknown archaeological remains identified,

including the identification of previously unknown landscape features. All mitigation will be undertaken by a suitably qualified archaeologist under licence (where required) granted by the Minister for Housing, Local Government and Heritage and in accordance with the provisions of the National Monuments Act, 1930-2014 (as amended).

- Ministerial Consent under Section 14 of the National Monuments Act, 1930-2014 will be required for works in close proximity to Jigginstown Castle. This will ensure the necessary oversight is incorporated into the works (as is also captured by the proposed mitigation measures).

- Vibration (and groundworks):

  - While the Department has acknowledged the assessment of the potential impact of vibration on Jigginstown Castle, it has stressed the vulnerability of the monument.

    Conservative parameters were utilised in the vibration assessment which concluded that there is unlikely to be a significant impact. In addition, the HDD will be at depth as well as lateral distance from the castle. Nevertheless, given the vulnerability of this monument, within the suite of proposed mitigation measures is a commitment that Jigginstown House be considered individually to ensure the monument is safeguarded. Section 9.5 of the EIAR contains the following mitigation measures that will be implemented by the appointed contractor:

    'Confirmatory structural surveys will be completed pre-construction at all structures that will be crossed or that are within 50m of the HDD locations. These locations will be monitored by the Contractor during the HDD works, and the surveys will be repeated post-construction. In the extremely unlikely event of repairs being required, these will be immediately undertaken in agreement with the structural owner'.

  - With regard to wider groundworks, no other groundworks beyond the HDD (for which vibration has been assessed) will take place in close proximity to the castle.

- Proposed Conditions:

- The attachment of conditions is at the discretion of the Board.
- Given that no direct impact on Jigginstown Castle has been identified, a detailed drawn and written record of this asset is not required. However, a photographic record of the setting of the Castle complex is recommended to mitigate the indirect impacts presented in Appendix 13.2 of the EIAR.
- The applicant acknowledges the Department's recommendations and will comply with the conditions of any grant of permission in addition to those already proposed as mitigation or monitoring measures. However, it is considered that some of the conditions recommended are not appropriate having regard to the applicant's statutory role and responsibility as TSO to design and develop a safe, secure, reliable, economical and efficient electricity transmission system.
- Where mitigation measures are necessary, their need and type will be dictated by confirmatory structural surveys which will be completed pre-construction at all structures to be crossed or within 50m of the HDD locations as presented in Section 9.5 of the EIAR. These locations will be monitored by the contractor during the HDD works and the surveys will be completed post construction. If a need for repairs arises, this will immediately be undertaken in agreement with the structure owner.
- With respect to the following condition as recommended by the Department:

  'If permission is granted, a Grade 1 Conservation Architect or equivalent should be appointed to oversee the construction phase and co-ordinate all works undertaken to offset the impact of the proposed construction and to record as necessary all conservation works undertaken as part of the project to maintain a permanent record. Interventions to the historic landscape should be carefully considered as part of a fully co-ordinated approach to be based on an understanding of the setting of the historic Jigginstown Castle'.

  It is recommended that the condition be updated to state:

  'If permission is granted, a Grade 1 Conservation Architect or equivalent shall be appointed or engaged by the contractor to advise on the

construction method at Joint Bay 60, its access and associated HDD location. The contractor's Grade 1 Conservation Architect or equivalent shall also liaise with the contractor's archaeologist to ensure the mitigation proposed regarding the provision of surveys is complied with to maintain the setting of the historic Jigginstown Castle'.

- The Department's condition recommending the appointment of a Project Archaeologist should be amended to state:

  'A Project Archaeologist shall be appointed to oversee and advise on all mitigation measures presented in the EIAR'.

- It should be noted that Section 13.5 of the EIAR states that *'all mitigation will be carried out by a suitably qualified archaeologist under licence (where required) granted by the Minster for Housing, Local Government and Heritage and in accordance with the provisions of the National Monuments Acts, 1930-2014, as amended*'.

- There is unlikely to be a significant impact on the monument. However, the recommendation to carry out further consultation with the Department (subsequent to consent and prior to commencement of works) is welcomed. Such consultation will include *inter alia* identification of particularly sensitive elements of the monument and the development of methodologies appropriate for the works as part of a consent process under Section 14 of the National Monuments Acts, which will be required following approval of the proposed development.

5.4.10. Response to the submission received from the Office of Public Works:

- No passing bays are required on the lands to the east of Jigginstown Castle.
- It is acknowledged that the OPW has concerns as regards potential damage to Jigginstown Castle as a result of vibration and that the monument may be more fragile / vulnerable than the '*potentially vulnerable buildings'* category it has been considered against. The proposed mitigation measures include a commitment that Jigginstown Castle will be considered individually to ensure that the monument is safeguarded. The following mitigation will be implemented by the appointed contractor:

'Confirmatory structural surveys will be completed pre-construction at all structures that will be crossed or that are within 50m of the HDD locations. These locations will be monitored by the contractor during the HDD works, and the surveys will be repeated post-construction. In the extremely unlikely event of repairs being required, these will be immediately undertaken in agreement with the structure owner'.

By implementing this mitigation measure, the list of proposed measures supplied by the OPW (as the structure owner) can be adopted by the appointed contractor. Following consent, the applicant would welcome discussions with the OPW to agree a way forward and a consultation strategy. This would also incorporate further consultation with the OPW and the National Monuments Service on Jigginstown Castle during the construction phase.

- Regarding the potential impact on 'essential ancillary uses' to Jigginstown Castle, it is noted that there are no current planning applications in this area. The proposed development would not preclude the future use of the lands in question and the applicant would welcome further discussions with the OPW and the Council on the matter post-consent.
- In relation to the OPW's recommendation as regards the *'historic designed landscape and archaeology'*, it is reiterated that while Jigginstown Castle was likely situated within extensive grounds and gardens, no extant landscape features have been identified within the site boundary to the east of the castle. Furthermore, later disturbance from previous development and utilities within the site boundary may have removed or damaged any such features that may have been present. Nevertheless, the area has been identified as an area with the potential for the presence of unknown archaeological remains.
- The EIAR has identified a direct impact on any previously unknown archaeological remains present within the land required for the proposed development. Mitigation is presented in Section 13.5 of the EIAR and includes for the carrying out of archaeological geophysical surveys and archaeological test excavations post-consent (but pre-construction) in all off-road sections required for construction, including the HDD and construction compounds.

This will inform the design of any archaeological excavation required to mitigate the impact on any unknown archaeological remains identified.

- All mitigation will be undertaken by a suitably qualified archaeologist under licence (where required) and in accordance with the National Monuments Acts, 1930-2004, as amended.
- Ministerial Consent under Section 14 of the National Monuments Act, 1930-2014 will be required for works in close proximity to Jigginstown Castle and will apply in this instance.
- There is unlikely to be a significant impact on the monument, however, the applicant welcomes the recommendation to carry out further consultation, subsequent to consent and prior to commencement of works. This will include *inter alia* the identification of particularly sensitive elements of the monument and methodologies appropriate for the works as part of the process for consent under Section 14 of the National Monuments Act.

5.4.11. Response to the submission received from Meath County Council:

- Biodiversity and Cumulative Impacts:
  - The EIARs prepared for the Kildare - Meath and the East Meath – North Dublin Grid Upgrade Projects have assessed the loss of hedgerows and trees both individually and cumulatively with efforts having been made to avoid the loss of such features as far as possible by way of routing and design. Tables 5.6 & 5.7 of the subject EIAR identify that 98% of hedgerows, 97% of treelines, and 88% of trees within the application boundary will be retained. Table 10.26 of the East Meath – North Dublin Grid Upgrade EIAR notes that 96% of hedgerows and 99% of treelines within the site will be retained. Where permanent losses are anticipated, the applicant has committed to a minimum of 130% compensatory off-site planting to deliver a net biodiversity gain.

    Both EIARs acknowledge a significant effect due to the loss of hedgerow, treelines and trees, however, mitigation measures are proposed to minimise this impact. In the subject instance, mitigation in the form of the replanting of hedgerows and trees is proposed at project specific locations,

with the exception of compensatory planting which is identified in Section 5.5.9.3 of the EIAR and states:

'Subject to consent, the compensatory planting will commence in advance of, or in parallel with, the construction phase. EirGrid has identified candidate sites in Co. Meath and Dublin in consultation with a charity partner, who provides compensatory planting options on third-party lands. Whether these candidate sites or other sites are used for compensatory planting, there will be no planting in semi-natural habitats of significant ecological value, which will be verified by the Ecologist employed [by] the compensation supplier. All planting will comply with planning requirements. The off-site compensatory planting will be entirely outside the Planning Application boundary. A minimum of 130% compensatory off-site planting will be delivered by the developer (ESBN), in consultation with EirGrid. The surplus will deliver an overall biodiversity net gain'.

The planting requirements for trees, hedgerows and treelines are listed in Section 22.1 of the EIAR. Specific to the requirements of Meath and Kildare County Councils, planting locations will be replacements for trees / hedgerows lost and agreed with landowners at the site of removal. Hedgerows will be replanted with species-rich varieties and suitable fencing in line with Teagasc and DAFM guidelines. The contractor will manage the establishment phase of the planting (1-2 years) in accordance with Teagasc guidance, to include watering in, weed suppression and, where required, protection from browsing animals. Thereafter, the developer (ESBN) will manage plantings for Years 3-5 in agreement with the landowner.

Mitigation will be delivered in partnership with the landowner, including Kildare and Meath County Councils. However, the applicant is unable to allow third parties to agree the location of mitigation specific to the proposed development.

Considering the aforementioned mitigation is proposed in the EIAR, the separate condition sought by the Council is not necessary as it will be a general requirement of any planning permission that the mitigation

measures proposed in the EIAR are delivered during construction and operation.

- <u>All-Ireland Pollinator Plan:</u>
  - With respect to the submission that the All-Ireland Pollinator Plan, 2021-2025 (AIPP) should be considered in the reinstatement of hedgerows / tree corridors, that document is listed in Section 10.3.2.2 of the EIAR as being of relevance to the proposed development. The AIPP is also included in the mitigation section of Chapter 10. The EIAR further states that, with the objective of restoring biodiversity in accordance with the AIPP, commercial seed mixes will not be sown.
- <u>Invasive Species Eradication and Management Strategy:</u>
  - In response to the request for an 'Invasive Species Eradication and Management Strategy' with monitoring post-completion of works, the following site-wide mitigation is proposed as part of the construction phase:

    'A management plan for those Third Schedule invasive plant species recorded during the survey which have the potential to be impacted by the works shall be prepared'.

    The measures proposed are set out in the Guidelines on the *'Mitigation of Noxious Weeds and Non-Native Invasive Plant Species on National Roads'* (NRA, 2010). Furthermore, mitigation will focus on the prevention of spread given that the location of existing invasive species is already known (as detailed in the CEMP).
- <u>EIAR - Archaeology:</u>
  - Detailed map regression and walkover photographs were not presented visually as it was felt they would not elaborate on the assessment included in the EIAR. However, relevant images have been provided to illustrate assets in accordance with the *'Cultural Heritage Guidelines for Electricity Transmission Projects'* (EirGrid, 2025).
  - The suggestion that chainages be added to heritage mapping to identify mitigation will be considered for future projects. However, it is not

considered necessary to resubmit the mapping on this occasion and the sequence of mitigation has been adequately produced to match the assessment.

- Regarding the statement about time in the programme to allow mitigation, Section 13.5 of the EIAR states *'The Contractor will allow sufficient time in their programme to allow the mitigation to be completed in areas in which such mitigation is required'*.
- Regarding the advance geophysical surveys, Section 13.5 of the EIAR states that '*All mitigation will be carried out by a suitably qualified archaeologist under licence (where required) granted by the Minister for Housing, Local Government and Heritage and in accordance with the provisions of the National Monuments Acts, 1930-2004 (as amended)'* and will be implemented post-consent and pre-construction. Areas identified for archaeological geophysical survey will be reviewed and an Archaeological Geophysical Survey Specification will be reviewed by an archaeogeophysicist.

- <u>EIAR and WFD Status:</u>
  - Hydromorphology is assessed in Chapter 12 of the EIAR which also includes details of baseline conditions such as the current classification status for identified WFD water bodies within the study area.

    Section 12.4.1.2 of the EIAR states *'in the absence of mitigation measures, there is potential for the proposed development to have adverse effects on hydromorphology locally'* and *'depending on the importance of the receptor, potential impacts may vary from a magnitude of small to moderate leading to an imperceptible, slight or significant significance of effect'*.

    These effects were identified for the construction phase only with no such effects occurring during the operational phase. Section 12.5 identifies the mitigation proposed while the residual effects on WFD water bodies are predicted to range from 'slight' to 'imperceptible'. Based on a review of the criteria for determining the magnitude of effects on surface water receptors, a 'slight' adverse impact defines a WFD impact as *'measurable*

impact but with no change in overall WFD classification or the status of supporting quality elements'. The assessment carried out was therefore proportionate to the receptors and scale of impact identified.

- Lighting:
  - Lighting poles do not form part of the proposed development in Co. Meath. No operational lighting will be provided along the cable route. The only lighting poles proposed will be within the Dunstown substation in Co. Kildare.
- Location of Joint Bays:
  - In relation to the concerns raised as regards the siting of joint bays, although alternatives were investigated, best international practice is to install joint bays.

    Joint bays are an integral part of the cable system and cannot be temporary or relocated once installed. They will be located off the tarmac roadway and into the road verge, wherever feasible.

    The location of individual joint bays may be subject to some refinement during detailed design, however, their final siting is considered in the context of the entire route as a chain of systems and, therefore, significant changes to the siting of one joint bay has the potential to significantly impact on the entire system design.
  - The suggestion to use alternative joint bay designs is not viable having regard to the specifics of the circuit which is fundamentally different to other projects i.e. High Voltage Alternating Current as opposed to High-Voltage Direct Current.
  - In its statutory role as TSO, the applicant must ultimately determine the appropriate technical details for the siting and design of joint bays, having regard to the requirements of the transmission system, necessary electrical functional specifications, and construction methodologies for cabling. The design as currently presented meets these standards.
  - In determining the siting of joint bays, the applicant engaged with other statutory undertakers and has endeavoured to minimise any impacts.

Notwithstanding, during the detailed design and the pre-construction phases, there will be further close engagement with the relevant local authorities, roads authorities (including TII) and other statutory undertakers, as appropriate, to ensure that the final siting and design of joint bays takes account of *inter alia* other utilities and services. During the detailed design stage, the applicant will continue to optimise joint bay locations, including use of the verge, to further reduce traffic impact.

- In moving towards detailed design, the applicant continuously reviews its functional specifications having regard to changes in legislation, best practice etc.
- The applicant is part of a High Voltage Forum represented by both the roads and electricity sectors to *inter alia* agree protocols and standards for accommodating HV underground cable networks in public roads. If / as appropriate, this will inform the final detailed design, including the siting and design of joint bays.
- There are established protocols with the ESB to ensure road modifications and upgrades or proposals by third parties to cross electricity infrastructure once commissioned will not be unreasonably prevented.

- <u>Diversion Routes:</u>
  - The construction programme assumes that Phases 1 & 2 of the construction stage (and the associated traffic management) will take place concurrently. Beyond this, closure lengths and associated diversions will be dependent on the appointed contractor and agreed as part of the detailed design and at the construction phase.
  - Diversions will be minimised, although they are largely dependent on the need to excavate trenches in the roadway and to provide an adequate and safe working area for the contractor.
  - The Construction Traffic Management Plan and the Temporary Traffic Management Plan (as required by the CEMP) highlight the work undertaken to date to consider temporary traffic management and any

associated diversions. Both documents will be developed further by the appointed contractor prior to construction.

- The appointed contractor will liaise with the Council, other relevant authorities, and the emergency services to prepare a comprehensive Construction Traffic Management Plan. This will include a communication and engagement strategy providing for regular communications with emergency services and breakdown services to ensure they are aware of the evolving road network as construction progresses.
- In advance of the works, plans will be communicated through various sources (such as websites, news articles, and signage along relevant stretches of road) to highlight the works timelines for all affected residents, landowners, and business owners.
- During the works, consideration will be given to the possibility of altering or removing temporary traffic measures to deal with any exceptional circumstances, such as high traffic volumes, adverse weather conditions, and emergency access.

- Proposed Conditions:
  - Some of the recommended conditions are not appropriate having regard to the applicant's statutory role and responsibility as TSO to design and develop a safe, secure, reliable, economical, and efficient electricity transmission system; concern matters already covered in the applicant's Functional Specifications and Standard Drawings; or are addressed by established protocols for proposals which seek to cross electricity infrastructure.

5.4.12. *Response to the submission received from Transport Infrastructure Ireland:*

- Traffic Management and Maintaining the Strategic Function of National Roads:
  - Consultation has informed the proposed development and TII was provided with technical notes to address queries as part of the pre-application process. The applicant will continue its ongoing consultation with TII, road authorities, and all relevant PPP Companies and MMaRC

contractors as required, to ensure that strategic functioning of the national road network is safeguarded.

- In accordance with Section 3.9.1 of CEMP, the appointed contractor will produce a traffic management plan which requires it to:

  'Agree temporary traffic measures and will the adopt and monitor an appropriate way of working, in consultation with Kildare and Meath County Councils, TII and / or their agents and An Garda Siochana as appropriate. Construction traffic will travel on predefined routes to and from the relevant sites to reduce the effects on local traffic'.

  The construction traffic management plan will be a live document insofar as it is: '*subject to ongoing future refinements by the appointed contractor in collaboration and agreement with the Roads Authorities. However, all such refinement will occur in the requirements of the TMP submitted as part of this application for approval, and therefore the subject of the assessment of the consenting authority*'.

- Traffic peaks across the road network were used in the EIAR to determine the sensitivity to construction traffic.

  Given that the peaks are known, the design, maintenance and operation of temporary traffic measures to maintain flows is available to the contractor, however, as part of the Environmental Incident Response Plan (as set out in the CEMP), it may be necessary to change these measures to allow emergency services access to works or the surrounding road network and as such it is expected that, in accordance with the traffic management plan, the contractor will have the authority to complete this action without compromising the wider health and safety of the road network or operatives on site.

- <u>Accommodating Abnormal Loads and Exceptional Abnormal Loads on the National Road Network:</u>

  - There is a procedure in place for the transport of any 'abnormal load' and any 'exceptional abnormal load' on the road network. The EIAR states that a range of options have been considered for how cable drum delivery will

be managed. Once a supplier has been chosen and a landing point confirmed, routes for the delivery of materials and equipment will be agreed with the local authorities.

- Proposed Conditions:
  - The recommended conditions for traffic management and abnormal loads have been considered in the previous paragraphs.
  - With regard to motorway crossings, it can be clarified that prior to commencing main construction activities, there will be further consultations on the design detail, timing and other related matters. These discussions will include those responsible for the maintenance of the motorways (PPP Companies and MMaRC contractors) and road authorities.
- Conclusion:
  - A number of the recommended conditions are overly specific, and the issues raised could be addressed by more general conditions in the event of a grant of permission. These may include matters of detail to be agreed with the relevant authority in advance of each stage of development, such as prior to the undertaking of confirmatory site investigations and enabling works, prior to the main construction works, and prior to completion of the development.
  - In the drafting of any conditions, the Board is requested to consider distinguishing between the various phases of construction by using relevant terms such as 'p*rior to the commencement of relevant site investigations and / or enabling works'*, *'prior to the commencement of main construction'*, or '*prior to the completion of the permitted development'*.

6.0 Relevant Planning History

6.1. Pre-Application Consultation:

6.1.1. ABP Ref. No. ABP-314111-22. On 25th August, 2022 the Board determined that a proposed development consisting of the upgrading of the existing Woodland 400/200kV electrical substation, in the townland of Woodland Batterstown, Co.

Meath, did not fall within the scope of section 182A of the Planning and Development Act, 2000, as amended, and that a planning application should be made in the first instance to the relevant planning authority.

6.1.2. ABP Ref. No. ABP-314112-22. On 15th March, 2023 the Board determined that the proposed development of a 400kV underground cable between Dunstown 400kV substation in the townland of Dunnstown, Co. Kildare, and Woodland 400kV substation in the townland of Woodland, Co. Meath, known as the 'Kildare-Meath Grid Upgrade' fell within the scope of section 182A of the Planning and Development Act, 2000, as amended, and that any application for approval must therefore be made directly to An Bord Pleanala.

6.2. **Woodland Substation, Co. Meath:**

6.2.1. PA Ref. No. 22/1550. Was granted on 25th May, 2023 permitting EirGrid PLC permission for a development consisting of: 1. Installation of outdoor Air Insulated Switchgear (AIS) electrical apparatus, including an associated extension to the hardstand compound (c. 4 hectares) to facilitate same. This includes: a) installation of an extension to both sides of the existing 400kV busbar, with provision of an associated wing coupler at either end of the existing 400kV busbar. b) additional apparatus and associated works to the two existing busbars to create what is known as sectionalising bays. c) relocation of existing transformer connections from existing busbar to adjacent location on new busbar. d) an associated single-story extension (c. 80 m^2) to the existing control building. 2. The erection of four new lightning masts and relocation of one existing mast (each c. 45m high). 3. Two bays on opposite sides to the newly extended 400kV busbars at the southern end of the substation, each bay to incorporate breakers, reactive compensation devices and cable sealing ends. These bays will facilitate the connection of the new 400kV underground cable links from Dunstown and Belcamp substations respectively. 4. Renewal, alteration and/or removal of associated 400 / 220kV electrical apparatus and equipment. 5. All ancillary site development works including site preparation works, site clearance and levelling; provision of hardstanding, internal access tracks and temporary construction compound; associated underground cabling and earthgrid; associated extended surface water drainage network including a soakaway; associated palisade fencing and gates (approximately 2.65m high); lighting poles and landscaping as required to facilitate the development.

6.2.2. PA Ref. No. 2360296. Was granted on 4th January, 2024 permitting EirGrid plc permission for works associated with the proposed uprate of the existing Louth – Woodland 220kV overhead powerline (OHL) between the existing Louth 220kV substation in the townland of Monavallet, County Louth and the existing Woodland 220kV substation in the townland of Woodland, County Meath. The Louth – Woodland 220kV OHL is approximately 61.5 km long and comprises 207 no. steel lattice tower structures. The existing circuit is located within the functional area of Louth County Council and Meath County Council. Approximately 38.5km of the existing OHL circuit is located within the functional area of Meath County Council and approximately 23km is within the functional area of Louth County Council. A separate planning application is being lodged with Louth County Council. The Proposed Development within the functional area of Meath County Council is located in the townlands of Cardrath, Broomfield, Balrenny, Higginstown (Slane Electoral Division), Coalpits, Mooretown (Slane Electoral Division), Cashel, Crewbane, Rossnaree, Fennor (Painestown Electoral Division), Newtown (Painestown Electoral Division), Rathdrinagh, Thurstianstown, Painestown (Painestown Electoral Division), Knockharley, Veldonstown, Kentstown, Danestown, Proudstown (Skreen Electoral Division), Macetown (Skreen Electoral Division), Painestown (Macetown Electoral Division), Frankstown, Riggins (Kilbrew Electoral Division), Reask (Kilbrew Electoral Division), Hallstown, Cabinhill, Flemingtown (Ratoath Electoral Division), Twentypark, Lagore Little, Brownstown (Ratoath Electoral Division), Bradystown, Curkeen, Commons (Ratoath Electoral Division), Gormanstown, Wilkinstown (Dunshaughlin Electoral Division), Powderlough, Raynestown, Derrockstown, Mill Land (Dunshaughlin Electoral Division), Parsonstown, Rathregan, Portan (Dunshaughlin Electoral Division), and Woodland. Five (5) temporary construction compounds and associated access routes are located in the townlands of Knockmooney, Slane, Rath, Flemingstown and Tuiterath. The proposed development works within the functional area of County Meath will comprise: 1) the replacement (“restringing”) of the existing overhead line circuit conductor with a new higher capacity conductor; 2) the strengthening of up to 25 no. tower foundations; 3) the replacement of hardware and fittings, such as insulators, insulator ha.

6.2.3. ABP Ref. No. ABP-319422- 24. Application by Eirgrid for approval of the proposed development of a 400kV underground cable between the existing Woodland

Substation, Batterstown, County Meath, and the existing Belcamp Substation, Clonshaugh, Fingal, County Dublin, known as the 'East Meath – North Dublin Grid Upgrade. No decision to date.

6.3. **Dunstown Substation, Co. Kildare:**

6.3.1. PA Ref. No. 11197. Was granted on 19th September, 2011 permitting EirGrid Plc permission for alterations to the existing ESB 400kV station to include: installation of 1 No. new 400kV bunded power transformer and associated 400kV and 220kV switchgear and instrument transformers; oil interceptor and associated site works.

6.3.2. PA Ref. No. 211175. Was granted on 9th September, 2022 permitting EirGrid Plc permission for an extension to the western boundary of the Dunnstown 400kV substation to allow connection of series compensation equipment to the Dunnstown-Moneypoint 400 kV circuit. The proposed development will comprise the following: (1) One 400kV double circuit end mast (approximately 53m high) to facilitate the diversion of the overhead line into the compound and the decommissioning of existing overhead conductors and surge arrestors; (2) Three 400kV gantry structures to allow connection of the circuit to the series compensation equipment (approximately 28m high); (3) Three series compensation platforms comprising of capacitor bank, metal oxide varistor, triggered air gap and discharge damping circuit (approximately 11m high to top of equipment on platform); (4) A communication and protection equipment control building (approximately 96.9m² and 5.5m high); (5) Associated 400kV electrical equipment including insulators, instrument transformers, overhead conductors, disconnectors, circuit breakers, surge arrestors, line traps, lightning masts and filter reactors; (6) All ancillary site development works including site preparation works, site clearance and levelling; hardstanding, internal access tracks and temporary construction compound; underground cabling and earthgrid, surface water drainage network including a soakaway; palisade (approximately 2.6m high) fencing and gates; lighting poles and landscaping as required to facilitate the development.

7.0 Policy and Context

7.1. **National Policy:**

7.1.1. **The Programme for Government - Our Shared Future:**

The current programme commits to an average 7% reduction in greenhouse gas (GHG) emissions per annum over the 2021-2030 period (a 51% reduction over the decade) and the achievement of net zero emissions by 2050. It states that the reliable supply of safe, secure and clean energy is essential in order to deliver a phase-out of fossil fuels and commits to taking the necessary action to deliver at least 70% of renewable electricity by 2030, including the continuation of Eirgrid's programme 'Delivering a Secure, Sustainable Electricity System'.

7.1.2. **Project Ireland 2040: National Planning Framework, 2018:**

The National Planning Framework (NPF) sets out a vision for the future development of the country and includes strategic goals in respect of transitioning to a low carbon and climate resilient society. It acknowledges that new energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand. It contains a number of relevant National Strategic Outcomes, including:

- NSO 8: *Transition to a Low Carbon and Climate Resilient Society*:

  Recognises that the diversification of energy production systems away from fossil fuels and towards a more renewables focused energy generation system (utilising sources such as wind, wave, solar and biomass) will be necessary. It includes an aim to deliver 40% of electricity needs from renewable sources by 2020, with further increases through to 2030 and beyond in accordance with EU and national policy. Reference is also made to the need to reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres.

7.1.3. **National Development Plan, 2021-2030:**

The National Development Plan, 2021-2030 (NDP) sets out the Government's investment strategy and budget up to 2030. The NDP commits to increasing the share of renewable energy up to 80% by 2030 and acknowledges that this will require increased levels of wind and solar electricity penetration onto the national

grid along with an expanded and strengthened electricity transmission and distribution network. The 'Strategic Investment Priorities for Energy' include:

> *'Significant expansion and strengthening of the electricity transmission and distribution grid onshore and offshore, including transmission cables and substations, to link renewable electricity generation to electricity consumers and to accommodate higher levels of renewables on the electricity system and reinforcement of the natural gas network by our system operators EirGrid, ESB Networks and Gas Networks Ireland'.*

7.1.4. **Policy Statement on Security of Electricity Supply, November 2021 (Government of Ireland):**

The Policy Statement notes that electricity is vital for the proper functioning of society and the economy and states that in order to contribute to the achievement of the targeted reductions in greenhouse gas emissions, the Government has committed that up to 80% of electricity consumption will come from renewable sources by 2030 on a pathway to net zero emissions. It emphasises that the continued security of electricity supply is a priority at national level and within the overarching EU policy framework in which the electricity market operates. The challenges to ensuring security of electricity supply are stated to include:

- ensuring adequate electricity generation capacity, storage, grid infrastructure, interconnection and system services are put in place to meet demand – including at periods of peak demand; and
- developing grid infrastructure and operating the electricity system in a safe and reliable manner.

Within the Policy Statement the Government recognises *inter alia* that ensuring security of electricity supply continues to be a national priority as the electricity system decarbonises towards net zero emissions and that there is a need for very significant investment in additional flexible conventional electricity generation, electricity grid infrastructure, interconnection, and storage in order to ensure security of electricity supply. It also states that the Government has approved *"that it is appropriate for additional electricity transmission and distribution grid infrastructure, electricity interconnection and electricity storage to be permitted and developed in*

order to support the growth of renewable energy and to support security of electricity supply".

7.1.5. **Energy Security in Ireland to 2030: Energy Security Package, November, 2023:**

This document outlines a new strategy to ensure energy security in Ireland for the decade, while ensuring a sustainable transition to a carbon neutral energy system by 2030. It has been published as part of an Energy Security Package, containing a range of supplementary analyses, consultations, and reviews, which have informed recommendations and actions related to energy security. The report sets out that Ireland's future energy will be secure by moving from an oil- and gas-based energy system to an electricity-led system, maximising our renewable energy potential, flexibility and being integrated into Europe's energy systems. It further states that energy security must be prioritised, monitored, and reviewed regularly, and includes a range of measures to implement such an approach in the short and medium term by prioritising:

- Reduced and Responsive Demand
- A Renewables-Led System
- More Resilient Systems
- Robust Risk Governance

Under each of these four areas of actions, the report sets out a range of measures, including the need for additional capacity of indigenous renewable energy, but also energy imports, energy storage, fuel diversification, demand side response, and renewable gases.

In relation to 'More Resilient Systems', Action 11 specifically aims *'To ensure a fit-for-purpose electricity grid that supports Ireland's energy and climate ambition'*. It further states that extensive reinforcement and expansion of the whole electricity transmission and distribution network will be critical to meeting Ireland's objective to decarbonise the economy through greater electrification. It is noted that EirGrid has identified over 350 grid reinforcement projects which would be needed by 2030 to meet the renewable targets, and to increase energy security with growing demand on the grid.

7.1.6. **National Energy and Climate Plan (NECP), 2021-2030:**

National Energy and Climate Plans are the rolling ten-year frameworks within which EU Member States must notify their climate and energy objectives, targets, policies, and measures to the European Commission and were established under Regulation (EU) 2018/1999 of the European Parliament and of the Council on the Governance of the Energy Union and Climate Action. The NECP establishes key measures to address the five dimensions of the EU Energy Union: Decarbonisation, Energy Efficiency, Energy Security, Internal Energy Market, and Research, Innovation & Competitiveness. It collates the policies, measures and actions related to energy and climate outlined in a range of government plans: such as the Climate Action Plan, the National Development Plan, and Project Ireland 2040, into one cohesive document. It also presents modelling that illustrates Ireland's current trajectories toward its main European targets.

In accordance with the Governance of the Energy Union and Climate Action Regulation, an updated National Energy and Climate Plan (NECP) 2021-2030 was submitted to the European Commission in July, 2024 which outlines energy and climate policies in detail for the period from 2021 to 2030 and looks onwards to 2050.

7.1.7. **Climate Action Plan (CAP), 2024:**

An updated Climate Action Plan, 2024 was approved by Government on 21st May, 2024. It aims to build upon the last plan by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings. The Plan provides a roadmap for taking decisive action to halve Ireland's emissions by 2030 and reach net zero by no later than 2050, as committed to in the Climate Action and Low Carbon Development (Amendment) Act, 2021.

Chapter 12: '*Electricity'* of the Plan states that the electricity sector continues to face an immense challenge in meeting its requirements under the sectoral emissions ceiling, as the decarbonisation of other sectors, including transport, heating, and industry, relies to a significant degree on electrification. The deployment rates of renewable energy and grid infrastructure required to meet the carbon budget programme for electricity are unprecedented and require urgent action across all actors to align with the national target. The Plan emphasises that transformational policies, measures and actions, along with societal change, are required to increase

the deployment of renewable energy generation, strengthen the electricity grid, and meet demand and flexibility needs. Key challenges include:

- Increasing renewable generation to supply 80% of demand by 2030 through the accelerated expansion of onshore wind and solar energy generation, developing offshore renewable generation, and delivering additional grid infrastructure.
- Transforming the flexibility of the electricity system by improving system services and increasing storage capacity.

The EPA has projected that the electricity sector emissions are currently not aligned to Climate Action Plan, 2023 (CAP23) pathways and targets (the projections forecast an overshoot of ~5.2 MtCO 2eq. in the period 2021 to 2025, and ~8.2 MtCO2eq. in the period 2026 to 2030). Therefore, the scale of the challenge to meet the sectoral emissions ceiling has been described as immense and requires policies to be moved from an 'end of decade' target trajectory towards a 'remaining carbon budget' target.

In order to facilitate the major acceleration and increase in onshore wind turbines and solar PV required nationwide to achieve national and regional targets, a previously unseen level of electricity network upgrades and construction will be required. For example, measures to accelerate renewable electricity generation include a requirement for significant investment in the transmission and distribution systems to maximise the usage of renewable electricity and to reduce constraints and congestion on the system. System Operators and the CRU must ensure the timely investment in, and delivery of, the required electricity network infrastructure, including key priorities such as the North South Interconnector, to meet the targets set out in the current, and subsequent, Climate Action Plans.

7.2. Regional Policy

7.2.1. Eastern & Midland Regional Economic and Spatial Strategy, 2019-2031:

The RSES provides a long-term strategic planning and economic framework for the development of the Eastern & Midland Region and represents a significant evolution of regional policy making which replaces the previous Regional Planning Guidelines. A key underlying principle of the Strategy is the need to enhance climate resilience and to accelerate a transition to a low carbon society.

Having regard to projected population and economic growth in the Region, the Strategy acknowledges the importance of ensuring that the existing electricity network be upgraded to provide appropriate capacity to facilitate development. It further states that the Dublin Region is the major load centre on the Irish electricity transmission system and that developing the grid in the Region will enable the transmission system to safely accommodate more diverse power flows from renewable generation and also to facilitate future growth in electricity demand. These developments will strengthen the grid for all electricity users, and in doing so will improve the security and quality of supply. The Strategy subsequently supports the development of a safe, secure and reliable supply of electricity and the development of enhanced electricity networks as well as new transmission infrastructure projects that might be brought forward under EirGrid's (2017) Grid Development Strategy which will serve the existing and future needs of the Region and strengthen all-island energy infrastructure and interconnection capacity.

Relevant Policy Objectives include:

- *RPO 10.19:* Support roll-out of the Smart Grids and Smart Cities Action Plan enabling new connections, grid balancing, energy management and micro grid development.
- *RPO 10.20:* Support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the Region and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this Strategy. This includes the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity and gas transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and the planning process.
- *RPO 10.22:* Support the reinforcement and strengthening of the electricity transmission and distribution network to facilitate planned growth and transmission / distribution of a renewable energy focused generation across the major demand centres to support an island population of 8 million people, including:

- Facilitating interconnection to Europe, particularly the ‘Celtic Interconnector’ to France and further interconnection to Europe/the UK in the longer term.
- Facilitating interconnection to Northern Ireland, particularly the ‘North-South Interconnector and further co-operation with relevant departments in Northern Ireland to enhance interconnection across the island in the longer term.
- Facilitating transboundary networks into and through the Region and between all adjacent Regions to ensure the RSES can be delivered in a sustainable and timely manner and that capacity is available at local, regional and national scale to meet future needs.
- Facilitate the delivery of the necessary integration of transmission network requirements to allow linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner.
- Support the safeguarding of strategic energy corridors from encroachment by other developments that could compromise the delivery of energy networks.

- *RPO 10.23:* Support EirGrid’s Implementation Plan 2017 – 2022 and Transmission Development Plan (TDP) 2016 and any subsequent plans prepared during the lifetime of the RSES that facilitate the timely delivery of major investment projects subject to appropriate environmental assessment and the outcome of the planning process, in particular:
    - Support reinforcement of the Greater Dublin Area between Dunstown and Woodland 400 kV substations to increase the capacity of the often congested and highly loaded Dublin transmission network to enable the transmission system to safely accommodate more diverse power flows and also facilitate future load growth in the area.
    - Support the installation of additional transformer capacity and increased circuit capacity to meet Dublin demand growth to strengthen the network for all electricity users and improve the security and quality of supply.

- Support the Laois-Kilkenny Reinforcement Project to strengthen the network in large parts of the Midlands and provide additional capacity for potential demand growth in the wider region and strengthen the Region's transmission network by improving security and quality of supply and ensuring there is the potential for demand growth.

7.3. Local Policy:

7.3.1. Kildare County Development Plan, 2023-2029:

Chapter 7: '*Energy & Communications'* of the Plan aims to encourage and support energy and communications efficiency and to achieve a reasonable balance between responding to EU and national policies on climate change, renewable energy and communications, and enabling resources to be harnessed in a manner consistent with the proper planning and sustainable development of the county.

Section 7.14: '*Energy Supply and Infrastructure'* acknowledges the role of the electricity transmission grid infrastructure in meeting the challenges of climate change and energy. It subsequently refers to the comprehensive development strategy for the country's electricity infrastructure provided in EirGrid's 2017 publication 'Grid Development Strategy - Your Grid, Your Tomorrow', along with the associated 'Grid Implementation Plan' for the initial period 2017-2022. Reference is also made to the Transmission Development Plan (TDP) 2020-2029 which lists the committed projects and projects under development for the enhancement of the Irish transmission network over the coming years. In addition, 'Shaping our Electricity Future - A Roadmap to achieve our Renewable Ambition (2021)' provides an outline of the key developments from a networks, engagement, operations and market perspective needed to support a secure transition to at least 80% renewables on the electricity grid by 2030. The Development Plan then states its support for the sustainable implementation of these plans and strategies and any subsequent plans, subject to landscape, residential, amenity and environmental considerations.

The Plan anticipates that growth in the Greater Dublin Area will give rise to demand for increased energy supply and a pressure to connect the region with other regions via the hinterland area that includes Co. Kildare. The Plan thus aims to support and facilitate the requirements of the major service providers, such as Eirgrid and ESB, where it is proposed to enhance or upgrade existing facilities or networks or to

provide new infrastructure subject to landscape, residential amenity and environmental considerations. The Maynooth 220kV and Dunstown 400kV substations are both identified as electrical substations of regional significance and the Council commits to supporting any reinforcement of the Greater Dublin Area between Dunstown and Woodland 400 kV substations.

The following policies and objectives are of particular relevance to the proposed development:

- *EC P19:* Support the development, reinforcement, renewal and expansion of the electricity transmission and distribution grid to provide for the future physical and economic development of Kildare. Such projects shall be subject to AA screening and where applicable, Stage 2 AA. The developments will have regard for protected species and provide mitigation and monitoring where applicable.
- *EC O64:* Support and safeguard the efficient and reliable supply of electricity to all homes and businesses in County Kildare.
- *EC O65:* Support the reinforcement and strengthening of the electricity transmission and distribution network, including the installation of Battery Energy Storage System plants, Synchronous Condenser plants, and associated dispatchable power plants associated with high energy users, to facilitate planned growth and transmission/distribution of a renewable energy focused generation, at appropriate locations and in consultation with relevant stakeholders, where they are adjacent and/or proximate to the grid network.
- *EC O66:* Facilitate the delivery of necessary integration of transmission network requirements to allow linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner.
- *EC O68:* Require that all electricity lines of 38kV and over, comply with all internationally recognised standards with regards to proximity to sensitive receptors including dwellings, nursing homes, hospitals, other inhabited structures and schools/crèches.
- *EC O70*: Facilitate the development of grid reinforcements including grid connections and a trans-boundary network into and through the county and between all adjacent counties. Such projects shall be subject to AA screening

and where applicable, Stage 2 AA. The developments will have regard for protected species and provide mitigation and monitoring where applicable.

- *EC O71:* Support and facilitate the Kildare-Meath Grid Upgrade (also known as Capital Project 966) to enable further renewable energy generation in line with the Governments' target of 80% renewable energy generation by 2030.
- *EC O73:* Consider the removal of trees (singular or in stands) and hedgerows (in part or in whole) only in circumstances where it can be clearly demonstrated that the removal of hedgerow material and or tree(s) is essential for the provision of energy and cannot be designed out. Where proven, the vegetation is to be replaced with equivalent number, species, variety and size as was in situ. Where non-native species are removed, they will be required to be replaced with native species. In all cases, plants of local provenance are to be planted within 1 year of removal and maintained to establishment to negate the habitat and biodiversity loss within 3 years. Existing vegetative or 'stepping-stone' linkages are to be maintained and improved upon to increase wildlife corridors. Opportunities should be sought to translocate existing species rich hedgerows, where possible, and subject to proper biosecurity protocols.

7.3.2. **Meath County Development Plan, 2021-2027:**

Chapter 6: '*Infrastructure Strategy'* includes Section 6.14: '*Climate Change'* which notes that the mitigation of the causes and impacts of climate change is one of the cross-cutting themes of the Development Plan before referencing the national objective of transitioning to a low carbon, climate resilient and environmentally sustainable economy in the period up to and including the year 2050.

Section 6.15: '*Energy'* of the Plan proceeds to detail how it has an overarching role in progressing a sustainable energy future for Co. Meath by recognising the central role of land use planning in promoting a low carbon society and mitigating the impacts of climate change. It subsequently sets out the applicable statutory and policy context before identifying several potentially feasible renewable energy options for the county.

Section 6.15.4.1: '*Electricity and Gas Networks'* refers to the importance of ensuring that the existing electricity network can be upgraded and can provide the enhanced

capacity necessary for the future development of the County. It further highlights that the strengthening of the national grid is important for a number of reasons including improving security of supply for the domestic, residential and enterprise market as well as attracting high-end enterprise which often requires significant energy capacity and reliability.

Relevant policy provisions include the following:

- *INF POL 46:* To support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the County and to facilitate new transmission infrastructure projects that may be brought forward during the lifetime of the plan including the delivery and integration, including linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner.
- *INF POL 48:* To ensure that energy transmission infrastructure follows best practice with regard to siting, design and least environmental impact in the interest of landscape protection.
- *INF POL 51:* To seek to avoid the sterilisation of lands proximate to key public transport corridors such as rail, when future energy transmission routes/pipelines are being designed and provided.
- *INF OBJ 50:* To seek the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner.

7.3.3. **Naas Local Area Plan, 2021-2027:**

The proposed development passes through the functional area of the Naas Local Area Plan, 2021-2027 and in this regard the following provisions are of note:

- *Policy I4:* Energy and Communications:

  It is the policy of the Council to promote and facilitate the development and renewal of energy and communications networks in Naas, while protecting the amenities of the town.

- *Objective IO 4.1:* Support the statutory providers of national grid infrastructure by safeguarding existing infrastructure and strategic corridors from

encroachment by development that might compromise the operation, maintenance and provision of energy networks.

7.3.4. **Other Local Area Plans:**

The proposed development will pass through the functional areas of the Kilcock Local Area Plan, 2015-2021 and the Sallins Local Area Plan, 2016-2022, and while both these plans are no longer in force, Kildare County Council has indicated that it will have regard to same until such time as they are reviewed or another plan made.

7.4. Natural Heritage Designations

The following natural heritage designations have been identified in the vicinity of the proposed development site:

7.4.1. Special Areas of Conservation:

- Ballynafagh Bog SAC (Site Code: 000391), approximately 1.7km west of the site.
- Ballynafagh Lake SAC (Site Code: 001387), approximately 2.8km west of the site.
- Rye Water Valley / Carton SAC (Site Code: 001398), approximately 6.1km southeast of the site.
- Mouds Bog SAC (Site Code: 002331), approximately 6.3km west of the site.
- Red Bog SAC (Site Code: 000397), approximately 8.7km east of the site.
- Pollardstown Fen SAC (Site Code: 000396), approximately 9.0km west of the site.
- Wicklow Mountains SAC (Site Code: 002122), approximately 13.0km east of the site.
- River Boyne and River Blackwater SAC (Site Code: 002299), approximately 14.2km northwest of the site.
- South Dublin Bay SAC (Site Code: 000210), approximately 31.7km east of the site.

- North Dublin Bay SAC (Site Code: 000206), approximately 32.4km east of the site.
- Rockabill to Dalkey Island SAC (Site Code: 003000), approximately 33.0km east of the site.
- Howth Head SAC (Site Code: 000202), approximately 33.5km east of the site.

7.4.2. Special Protection Areas:

- Poulaphouca Reservoir SPA (Site Code: 004063), approximately 7.8km southeast of the site.
- River Boyne and River Blackwater SPA (Site Code: 004232), approximately 14.5km northwest of the site.
- Wicklow Mountains SPA (Site Code: 004040), approximately 14.5km east-southeast of the site.
- North West Irish Sea SPA (Site Code: 004236), approximately 29.3km east of the site.
- South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024), approximately 32km east-northeast of the site.
- North Bull Island SPA (Site Code: 004006), approximately 34km east of the site.
- Howth Head Coast SPA (Site Code: 004113), approximately 42.6km east of the site.

7.4.3. Natural Heritage Areas:

- Hodgestown Bog NHA (Site Code: 001393), approximately 3.7km northwest of the site.

7.4.4. Proposed Natural Heritage Areas:

- Royal Canal pNHA (Site Code: 002103) which is crossed by the proposed development.
- Grand Canal pNHA (Site Code: 002104) which is crossed by the proposed development.

- Liffey at Osberstown pNHA (Site Code: 001395), approximately 0.85km west of the site.
- Ballynafagh Bog pNHA (Site Code: 000391), approximately 1.7km west of the site.
- Donadea Wood pNHA (Site Code: 001391), approximately 2km west of the site.
- Ballynafagh Lake pNHA (Site Code: 001387), approximately 2.8km west of the site.
- Liffey Valley Meander Belt pNHA (Site Code: 000393), approximately 4.0km southeast of the site.
- Liffey Bank above Athgarvan pNHA (Site Code: 001396), approximately 4.8km west of the site.
- Rye Water Valley / Carton pNHA (Site Code: 001398), approximately 6.2km east-southeast of the site.
- Mouds Bog pNHA (Site Code: 002331), approximately 6.3km west of the site.
- Curragh pNHA (Site Code: 000392), approximately 6.8km southwest of the site.
- Newtown Marshes pNHA (Site Code: 001759), approximately 6.9km southeast of the site.
- Poulaphouca Reservoir pNHA (Site Code: 000731), approximately 7.2km southeast of the site.
- Red Bog pNHA (Site Code: 000397), approximately 8.7km east of the site.
- Dunlavin Marshes pNHA (Site Code: 001772), approximately 8.9km south of the site.
- Pollardstown Fen pNHA (Site Code: 000396), approximately 9.0km west of the site.
- Kilteel Wood pNHA (Site Code: 001394), approximately 9.3km east of the site.

- Rathmoylan Esker pNHA (Site Code: 000557), approximately 9.7km northwest of the site.
- Hollywood Glen pNHA (Site Code: 002053), approximately 10.8km southeast of the site.
- Liffey Valley pNHA (Site Code: 000128), approximately 13.7km east-southeast of the site.
- Trim pNHA (Site Code: 001357), approximately 14.1km northwest of the site.
- Slade of Saggart and Crooksling Glen pNHA (Site Code: 000211), approximately 14.5km east of the site.

7.4.5. Candidate Natural Heritage Area:

- Harristown Commons North cNHA to the northeast of the Dunstown Substation, Co. Kildare.
- Harristown Commons South (Dunshane Common) cNHA to the northeast of the Dunstown Substation, Co. Kildare.

N.B. Chapter 12: '*Biodiversity & Green Infrastructure'* of the Kildare County Development Plan, 2023-2029 states that '*Candidate Natural Heritage Area (cNHA) is the name given to wildlife sites that are proposed by the NPWS and by third parties for consideration as NHAs. The cNHA sites have no legal protection until they are within the formal NHA designation process'*.

For the purposes of clarity, the Board is also referred to Section 10.4.1.3 of the EIAR along with Objective BI A10 of the Development Plan which aims to *'Identify and map County Biodiversity Sites in cooperation with the relevant statutory agencies, other relevant groups and the general public, not otherwise protected by legislation and to identify specific peatland areas of biodiversity interest for protection, including legal protection where mechanisms are available (including but not limited to Lullymore/Allen/Lodge Bog, Harristown/Dunshane Common, Kingsbog Common, and Suncroft Common)'*.

8.0 Planning Assessment

From my reading of the file, inspection of the site, and assessment of the relevant policy provisions, I conclude that the key planning issues arising are:

- The principle of the development and planning policy
- Landownership & consent
- Cable routing in the Millicent area
- Flooding implications
- Traffic considerations
- Archaeological and architectural heritage (Jigginstown House / Castle)
- Other issues

Section 9.0 contains an Environmental Impact Assessment.

Section 10.0 contains an Appropriate Assessment.

These are assessed as follows.

8.1. The Principle of the Development and Planning Policy:

8.1.1. The proposed development of the 'Kildare – Meath Grid Upgrade' (Capital Project Ref. CP966) primarily comprises the construction of approximately 53km of new 400kV underground cable (along with associated equipment, apparatus, structures, and site development works) between the Dunstown 400kV substation in Co. Kildare and the Woodland 400kV substation in Co. Meath, along with upgrading works to both substations to facilitate the connection of the proposed underground cable to the electrical grid.

8.1.2. The primary drivers underpinning the need for the proposed development are the increased demand for electricity on the east coast and the integration of generation from the south and southwest regions of the country. More specifically, the demand for electricity on the eastern coast is expected to increase as result of natural growth and the planned connection of high energy users in the region (a trend which is expected to continue). Additionally, significant levels of new renewable electricity generation have connected or are in the process of connecting to the transmission and distribution system in the southern and southwestern regions (where the newer

and more cost effective existing conventional generation units are also located) and thus a scenario has developed whereby a significant portion of the nation's generation sources are located at distance from the main demand centres within the Dublin and Greater Dublin Areas and the eastern region in general. These two drivers introduce cross-country power flows on the existing transmission system from the west to the east coast and, therefore, the proposed development is needed to ensure transmission system reliability and security by way of compliance with EirGrid's '*Transmission System Security Planning Standards'*.

8.1.3. At present, power generated in the south and southwest regions is transported cross-country via the 2 No. existing 400kV lines from the Moneypoint station in Co. Clare to the Dunstown substation in Co. Kildare and the Woodland substation in Co. Meath. Given the large amounts of electricity transported on these 400kV lines, the unplanned loss of either of the lines could cause problems affecting the security of electricity supply throughout Ireland in violation of the '*Transmission System Security Planning Standards'* (as regards bringing power to the east coast and transferring that power within Counties Dublin, Kildare & Meath). Therefore, in order to solve this emerging issue, there is a critical need to strengthen the electricity network between Dunstown and Woodland to avoid capacity and voltage problems (a more detailed explanation of the need for the proposed development is set out in Volume 5: *'Supporting Documents'* of the EIAR, with particular reference to '*Step 1 – Needs Report'*).

8.1.4. In addition to helping with the transfer of electricity to the east of the country through the creation of a new circuit in the transmission network and its subsequent distribution through the network in Dublin, Meath and Kildare thereby addressing the aforementioned issues, the proposed development will also help in meeting national Climate Action Plan targets by allowing more renewable generation (including the transmission of electricity from any offshore renewable sources) to be connected to the electrical grid with this energy then being supplied to where demand is greatest.

8.1.5. Given the nature and stated purpose of the proposed development, it is apparent that it has a role to play in realising Ireland's international, European and national commitments as regards accommodating the provision of energy from renewable sources and achieving a reduction in greenhouse gas emissions. In this regard, there are a multitude of policy provisions at national, regional and local level which

support the development of renewable energy projects with a view to transitioning to a low carbon and climate resilient society. For example, the National Planning Framework (NPF) acknowledges that new energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system with National Strategic Outcome 8: *'Transition to a Low Carbon and Climate Resilient Society'* expressly recognising *'the need to reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres'*. The National Development Plan, 2021-2030 expands on the foregoing by identifying the significant expansion and strengthening of the electricity transmission and distribution grid, including transmission cables and substations, as a strategic investment priority.

8.1.6. The Government's '*Policy Statement on Security of Electricity Supply, 2021'* also emphasises that ensuring the security of electricity supply will continue to be a national priority as the electricity system decarbonises towards net zero emissions and that it is appropriate for additional electricity transmission and distribution grid infrastructure to be permitted and developed in order to support the growth of renewable energy and to support security of electricity supply. This prioritisation of energy security is reiterated in '*Energy Security in Ireland to 2030: Energy Security Package, 2023'* with Action 11 specifically aiming '*To ensure a fit-for-purpose electricity grid that supports Ireland's energy and climate ambition'*. It further states that extensive reinforcement and expansion of the whole electricity transmission and distribution network will be critical to meeting Ireland's objective to decarbonise the economy through greater electrification.

8.1.7. The proposed development is also consistent with the Climate Action Plan, 2024 which states that the deployment rates of renewable energy and grid infrastructure required to meet the carbon budget programme for electricity are unprecedented and require urgent action across all actors to align with the national target. The Plan also identifies the key challenges of increasing renewable generation and delivering additional grid infrastructure along with transforming the flexibility of the electricity system by improving system services and increasing storage capacity. It further states that in order to achieve the targets set out in the current, and subsequent, Climate Action Plans, a previously unseen level of electricity network upgrades and

construction will be required which will in turn necessitate significant investment in the transmission and distribution systems to maximise the usage of renewable electricity and to reduce constraints and congestion on the system.

8.1.8. The Eastern & Midland Regional Economic and Spatial Strategy, 2019-2031 lends further support to the development of a safe, secure and reliable supply of electricity and the development of enhanced electricity networks and new transmission infrastructure projects. Most notably, Regional Policy Objective 10.23 specifically supports *'reinforcement of the Greater Dublin Area between Dunstown and Woodland 400kV substations to increase the capacity of the often congested and highly loaded Dublin transmission network to enable the transmission system to safely accommodate more diverse power flows and also facilitate future load growth in the area'*.

8.1.9. At a county level, the Kildare County Development Plan, 2023-2029 aims to support and facilitate the requirements of major service providers, such as Eirgrid and ESB, where it is proposed to enhance or upgrade existing facilities or networks or to provide new infrastructure, subject to landscape, residential amenity and environmental considerations. It further commits the Council to supporting any reinforcement of the Greater Dublin Area between Dunstown and Woodland 400kV substations with Objective EC O71 aiming to '*Support and facilitate the Kildare-Meath Grid Upgrade (also known as Capital Project 966) to enable further renewable energy generation in line with the Governments' target of 80% renewable energy generation by 2030'.*

8.1.10. The Meath County Development Plan, 2021-2027 also contains broader provisions highlighting the importance of strengthening the national grid and aimed at supporting the development of enhanced electricity supplies and associated networks, and facilitating new transmission infrastructure, including the connection of renewable energy proposals to the electricity transmission grid.

8.1.11. On the basis that the proposed development will assist in the transfer of primarily renewable electricity from the south and southwest regions of Ireland to the east region (with its subsequent distribution within the network in Meath, Kildare and Dublin) and will also serve to strengthen the transmission network by improving reliability and security in the eastern region, in my opinion, it is entirely reasonable to

consider the submitted proposal as encompassing an essential infrastructural component which is consistent with the broader national, regional and local policy provisions outlined in Section 7 of this report.

8.2. Landownership & Consent:

8.2.1. The principal objection to the proposed development raised in the third-party observation lodged by Mr. Patrick G. Murphy relates to the issue of consent and the alleged failure of the applicant to either obtain or supply the written permission of all those landowners affected by the proposed works. By extension, it has been asserted that the subject application should be declared invalid on the basis that it fails to adhere to the requirements of the Planning and Development Regulations, 2001, as amended. It has been further submitted that neither the applicant (EirGrid) nor its contractor (the ESB) have been afforded any legislative exemption from the requirement to provide the written consent of the owners of the relevant development lands as well as the names and addresses of those landowners.

8.2.2. In my opinion, the broader concerns raised by the observer as regards consent and / or the applicant's interest in the proposed development site along with its ability to lodge the subject application have been satisfactorily addressed in the applicant's response to the submission. By way of summation, the applicant has sought to rely on the judgement of the High Court in its determination of *North East Pylon Pressure Campaign Ltd. v. An Bord Pleanala [2017] IEHC 338* which ruled that there is no requirement to provide landowner consent in the case of an application for the approval of electricity transmission infrastructure under Section 182A of the Planning and Development Act, 200, as amended. In that instance, it was held that although a planning application made under Section 34 of the Act is required to be accompanied by the written consent of the landowner pursuant to Article 22(2)(g)(i) of the Planning and Development Regulations, 2001, as amended, there is no equivalent provision in the Regulations governing applications under Section 182A of the Act. It was further held that there was no rule at common law or pursuant to the Constitution or the European Convention on Human Rights which mandated that the applicant could only seek approval pursuant to Section 182A of the Act with the consent of the owners of an affected property.

8.2.3. Given that the subject application is being made by EirGrid for the purposes of "transmission" under Section 182A of the Act, and having regard to the judgement of the High Court in *North East Pylon Pressure Campaign Ltd. v. An Bord Pleanala*, I am satisfied that there is no requirement for the applicant to submit the consent of those landowners whose properties fall within the confines of the application site boundary. In this regard, I would suggest that those remaining aspects of the observer's objection which concern a 'lack of consent' are redundant whereas any future acquisition of lands necessitating approval by the Commission for Regulation of Utilities are beyond the remit of this appeal.

8.3. Cable Routing in the Millicent Area:

8.3.1. With respect to the proposed routing of the UGC in the Millicent South area (broadly corresponding with that section extending between the River Liffey at the old Millicent Bridge and the new Sallins Bypass bridge), a third-party observer (Mr. Murphy) has questioned the rationale for the selection of a route which passes through his lands to the east of the River Liffey despite the submitted particulars showing the "Best Performing Option" traversing lands on the western side of the river. More specifically, it has been queried why a desire to avoid imposing on the private garden areas of certain residential properties at Millicent was sufficient cause to warrant re-routing of the UGC from its 'Best Performing Option' when such an approach was not employed for other gardens along the route which are also affected by the proposed development.

8.3.2. At the outset, it should be noted that the full nature and extent of the proposed development at the location identified by the observer is not limited to the installation of the UGC but also includes for Horizontal Directional Drilling with associated launch and reception pits to either side of the River Liffey, Joint Bays (JBs), a temporary working strip, and a permanent access track to JB50 extending from an existing entrance onto the Sallin Bypass. The larger proportion of these works occur to the east of the River Liffey and thus would appear to be located on the observer's lands.

8.3.3. The six-step framework to grid development employed by the applicant is outlined in Chapter 1 of the EIAR (Vol. 2: Main Text) while the relevant supporting documentation is included in Volume 5 of the EIAR. It is Step 4 of this process which

has served to inform the UGC route as proposed (please refer to Step 4A: *'Emerging Best Performing Route Option Report'* and Step 4B: '*Best Performing Route Option Report'* of Vol. 5 of the EIAR). Section 4.3 of the EIAR sets out the route alternatives that were considered as part of the process to establish the proposed development with Step 4A examining four proposed route options for an UGC between the Dunstown and Woodland substations (the design of which was informed by a series routing principles which included avoiding motorways; maximising the use of national, regional and local roads; avoiding going off-road, through private land and through agricultural land where possible; and minimising the overall length of the route). A comparative evaluation subsequently determined that Option A (shown in Red in Plate 4.8 of the EIAR) was the Emerging Best Performing Option (BPO). Step 4B then re-examined this option to refine the route as far as possible to remove any wider areas (corridors) and to provide more certainty on the specific location, however, it was identified that further design survey, assessment, and consultation would be undertaken at Step 5 and refinements to the BPO would be possible.

8.3.4. The subject application represents Step 5 in the applicant's six-step framework for grid development with further refinements having been made to the route option since the conclusion of Step 4. One of these changes relates to the crossing of the River Liffey at Millicent and is the subject of the observer's concerns.

8.3.5. Section 4.4.2.3 of the EIAR details that although the BPO at Step 4 was proposed to travel along the western bank of the River Liffey, this was reassessed following discussions with landowners when concerns were raised about the cable route passing through the gardens of two residential properties while ecological surveys completed to inform the planning application had also identified the presence of a number of protected species along the western bank of the River Liffey. Accordingly, the decision was made to investigate alternative routing options to the BPO at this location. A total of 6 No. alternative route options were then considered (as shown in Plate 4.12 of the EIAR) although it should be noted that other route options had previously been considered in this area through Step 4 before being ruled out for a variety of reasons.

8.3.6. The EIAR proceeds to state that the area around Millicent generally consists of narrow roads lined with mature trees thereby making the routing of the UGC and the siting of joint bays challenging. Other constraints include the concentration of

residential properties in the area; the shallow deck depth of the old stone bridge over the River Liffey; the difficulties posed to any crossing adjacent to the bridge due to the presence of residential properties on both sides to the river to the west and a woodland area of biodiversity value to the east; the location of Millicent House to the northeast of the bridge; and the presence of other constraining factors in the Millicent area, including a private airfield to the north and a golf course to the northeast.

8.3.7. The 6 No. alternative options were thus assessed against set performance criteria (Table 4.5 of the EIAR) with Route Option No. 6 performing better in terms of the 'Economy', 'Technical' and 'Deliverability' criteria. Its shorter length was also considered likely to decrease any potential 'Environment' and Socio-economic' effects. Route Option No. 6 was further considered the most similar to the BPO given the smallest net change in route length and its location on the opposite bank of the River Liffey.

8.3.8. Comparatively, Route Options 1, 2 & 5 did not perform as well given their locations much further away from the BPO and the considerably greater net increase in overall route length. Route Option No. 4 was rejected as it would have involved trenching through the designed gardens of the Millicent Demesne giving rise to potential impacts on mature trees. Route Option No. 6 was also preferred to Route Option No. 3 because of its shorter length and decreased net change.

8.3.9. Further clarity in the EIAR on the specifics of the final design of Route Option No. 6 explains how the route was moved to the east away from the River Liffey in order to allow it to enter the R407 Sallins Bypass at a suitable location where the roadway is closer to the adjacent ground levels (which is not the case further west as the bypass rises to cross the River Liffey).

8.3.10. In response to the observer's submission, the applicant has sought to emphasise that the selected route option was chosen to avoid impacts on residential receptors and the more sensitive ecological receptors on the western bank of the River Liffey. It has also been submitted that there are no instances where residential gardens are perpendicularly crossed by the proposed development and that while there is one garden where the route will clip its corner (at Chainage 11200 and shown on Drg. No. 321084AH-JAC-ZZ-XX-DR-K-2117), the impact arising is not comparable to the

more significant effect of a perpendicular crossing (as would occur had the route along the western bank of the River Liffey at Millicent been selected).

8.3.11. Having reviewed the available information, whilst I would acknowledge the legitimacy of the observer's concerns as regards the potential impact and disturbance arising from the routing of the proposed development through his lands, in my opinion, the applicant has made a well-reasoned argument in favour of the route alignment proposed and its revision / refinement from that previously identified as the Best Performing Option in Step 4 of its framework for grid development. Although I would question whether the two 'garden areas' to the west of the River Liffey are in fact regularly used as such by the respective neighbouring residential properties (as historical aerial photography would suggest a usage more akin to pasture or general agriculture), it would appear that consultations carried out by the applicant has confirmed that the two landowners were / are using a section of the then proposed cable route as residential gardens. In any event, I note that biodiversity considerations also placed a role in the route diversion with ecological surveys having identified protected species on the western bank of the River Liffey. While no further details have been provided of these surveys or the species identified, it is of note that the BPO route to the west of the River Liffey was to have passed through improved grassland situated alongside a small area of riverside woodland whereas the proposed route to the east extends through arable farmland bounding the river embankment. In this regard, I am inclined to concur with the applicant that the Step 4 BPO would extend through lands of a greater ecological value than the selected route and thus there is merit to the decision to deviate from the BPO as has been proposed.

8.3.12. On balance, I would accept that it is preferable to avoid routing the proposed UGC etc. through residential property / garden areas (with a view to minimising the associated impacts, disturbance and complications) and to instead amend the route to pass through agricultural land. I am also satisfied that the selected route likely serves to avoid an area of greater ecological value. Therefore, it is my opinion that there is sufficient rationale to explain the route selection as proposed.

8.4. **Flooding Implications:**

8.4.1. The flood risk management implications of the proposed development are assessed in Chapter 12: '*Hydrology'* of the EIAR and have been informed by the Flood Risk Assessment appended to that document (Appendix 12.1) which has been prepared in accordance with the *'Planning System and Flood Risk Management, Guidelines for Planning Authorities'*.

8.4.2. By way of summation, the Flood Risk Assessment has adopted a conservative approach by determining that the proposed development should be considered to comprise "*essential infrastructure*" in its entirety with the result that it should be classified as '*highly vulnerable development'* by reference to Table 3.1 of the Guidelines. It subsequently identifies those incidences of historic flooding in the area and notes that the proposed development will cross a number of rivers and streams along its route before then examining the potential for the application site to be subject to flood events.

8.4.3. Upon review of the fluvial flood mapping derived from the OPW's 'Preliminary Flood Risk Assessment' and 'Eastern Catchment Flood Risk and Management (CFRAM) Study', the FRA has established that while the route of the proposed development is largely not at risk of fluvial flooding, some of the watercourse crossings will occur in flood risk areas such as at WB13 (Rye River) and WB14 (Royal Canal) to the northwest of Kilcock. Reference has also been made to the National Indicative Fluvial Mapping which also indicates that although the risk of fluvial flooding to the proposed works is generally low, in some key areas where watercourses will be crossed, the proposed development will extend through the 0.1% and 1% AEP fluvial flood risk areas (although it has been emphasised that as the proposed development will be underground, there is a low risk of flooding at these areas only during the construction phase).

8.4.4. In terms of the potential for coastal flooding, given the separation distances involved and the differences in elevation, the FRA has determined that the proposed development is not at risk of coastal flooding.

8.4.5. With regard to rainfall / pluvial flood risk, it has been submitted that pluvial flood extents are available for areas of Kildare and Meath with flood mapping having considered the flood risk in the 10%, 1% and 0.5% AEP rainfall event scenarios. It is further stated that the rainfall flood extents in the study area were reviewed using a

QGIS shapefile, based on data from www.floodinfo.ie, as well as extracts from the pluvial flood mapping contained in the Preliminary Flood Risk Assessment prepared by the Office of Public Works (as part of its CFRAM programme). This has allowed the FRA to conclude that overall risk of pluvial flooding to the proposed development is low, although it will cross a number of pluvial flood zones.

8.4.6. In relation to the potential for groundwater flooding, the FRA has reviewed the relevant mapping available from the OPW and determined that there is no risk of groundwater flooding to the proposed development. It has also been noted that should any seepage of groundwater occur into the trenching of the proposed development, mitigation measures such as dewatering and the use of trench boxes may be deployed as necessary.

8.4.7. In reference to the Strategic Flood Risk Assessments prepared as part of the Meath County Development Plan, 2020-2026, Kildare County Development Plan, 2023-2029, and Naas Local Area Plan, 2021-2027 (along with the flood risk mapping previously carried out for the Kilcock Local Area Plan, 2015-2021 and the Sallins Local Area Plan, 2016-2022), the majority of the proposed development site is recorded as being located in Flood Zone 'C' (i.e. on lands where the probability of flooding is low at less than 0.1% AEP or 1 in 1,000 for river flooding) with only local water crossings falling within Flood Zones 'A' & 'B' i.e. within the 1.0% & 0.1% AEP flood extents respectively.

8.4.8. The FRA also considers the flood risk implications for the proposed development attributable to climate change by reference to the fluvial flood mapping for the 'Mid-Range Future Scenario' contained in both the Eastern CFRAM Study and the National Indicative Fluvial Mapping.

8.4.9. The flood risk to the proposed development (Chapter 5 of the FRA) has thus been determined to be two-fold. Firstly, the fluvial flood extents derived from the CFRAM Study have established that there will be a low risk of flooding from local watercourses during construction in key areas where a watercourse will be crossed. Secondly, the CFRAM pluvial flood extents show there to be a low risk of pluvial flooding during construction at certain locations along the proposed development route where open trenching will be used as part of the works.

8.4.10. The potential flood risk to the surrounding area consequent on the proposed development (Chapter 6 of the FRA) similarly concerns fluvial and pluvial flooding. In terms of impacts on fluvial flooding, it is of note that the proposed development will avoid Flood Zones 'A' & 'B' where feasible while the proposed cabling will be underground and designed to be floodable. In addition, any works proposed to watercourses (e.g. instream trenching) will be designed to maintain waterflows and allow the discharge of water without affecting flood risk. However, it is acknowledged that the proposal is expected to slightly increase the extent of impermeable areas due to the hardstanding areas and permanent access tracks required for the off-road joint bays (the FRA identifies the permanent access tracks located either partially or fully within the PFRA Fluvial Flood Extents as serving Joint Bays 1-4, JB8< JB15, JB50, JB54 & JB60), although this is to be offset by providing additional drainage sumps at the joint bays. Therefore, it has been submitted that the increase in impermeable area will not result in any significant loss of floodplain and will not increase the risk of flooding through the displacement of floodwaters etc.

8.4.11. The impact on pluvial flooding considerations also relates to the increased impermeable surfacing attributable to the new hardstanding areas, joint bays and permanent access tracks, however, it has been submitted that the access track materials will be permeable to a degree while the tracks themselves will be sloped to discharge to adjacent greenfield areas. Reference is also made to the additional drainage sumps to be provided at the joint bays. Accordingly, it has been submitted that the proposed development will have no impact on pluvial flood risk.

8.4.12. Notwithstanding the assertion that the proposed development, subject to mitigation, will not impact on the existing fluvial flooding regime (through the significant loss of floodplain or the displacement of floodwaters etc.), it is a key instrument of the *'Planning System and Flood Risk Management, Guidelines for Planning Authorities'* to apply a sequential approach to flood risk management so as to guide development away from areas at risk from flooding through the use of flood zones and the vulnerability of different development types. In this regard, where a planning authority is considering the future development of areas at a high or moderate probability of flooding that would include types of development that are inappropriate in terms of their vulnerability, the '*Justification Test'* set out in Box 5.1 of the Guidelines should be employed.

8.4.13. Although the proposed development site is within Flood Zone 'C' (i.e. on lands where the probability of flooding is low at less than 0.1% AEP or 1 in 1,000 for river flooding), several local water crossings will necessitate works within Flood Zones 'A' & 'B' i.e. within the 1.0% & 0.1% AEP flood extents respectively. Therefore, given the classification of the works as '*highly vulnerable development'*, Chapter 7 of the FRA has included individual assessments of the project for fluvial and pluvial flood risk against the criteria set out in Box 5.1 of the Guidelines. Each of these assessments has concluded that the proposal satisfies the 'Justification Test'.

8.4.14. Having considered the available information, I am satisfied that the proposed development complies with the relevant provisions of both Development Plans and the '*Planning System and Flood Risk Management, Guidelines for Planning Authorities'* and will not negatively impact on the flood regime of the surrounding area through the displacement of floodwaters etc. Furthermore, it should be noted that the proposed development has been designed to not be vulnerable to flooding e.g. the proposed cable will be underground and is designed to be floodable without affecting its operation while all joint bays are designed with watertight connections as standard.

8.5. Traffic Considerations:

8.5.1. Chapter 14.0 of the Environmental Impact Assessment Report describes the existing road network and baseline traffic conditions proximate to the proposed development before providing an in-depth assessment of the impact of the proposal on traffic and transport considerations. In this regard, I am inclined to question the assertion by the third-party observer that there has been no assessment of the traffic impact of the proposed development on the surrounding road network or the environmental impacts arising from the disturbance to traffic.

8.5.2. The EIAR has determined that the study area for the assessment of any impacts on traffic and transport considerations attributable to the proposed development broadly encompasses the existing road network along the route of the proposed UGC. It proceeds to state how the cable route is traversed by a number of regional and local roads which are predominantly rural in nature (noting that although the M4 & M7 Motorways cross through the study area they will not be directly impacted by the proposed development) before acknowledging the likely important role of the study

area road network for commuter traffic given the proximity of Dublin City. For ease of reference, the assessment subsequently splits the cable route into 31 No. Temporary Traffic Management (TTM) Sections and notes that for 19 No. of these TTMs (totalling 43.6km in length) the cable route will be 'in-road' (mostly along regional roads) with the remaining 12 No. TTMs (amounting to 9.3km) relating to 'off-road' cabling (predominantly through agricultural lands).

8.5.3. Traffic surveys were undertaken in 2022 to gain an understanding of representative baseline conditions which entailed the completion of 30 No. Junction Turning Counts (JTCs) and 30 No. Automated Traffic Counts (ATCs) along the cable route. Traffic volume forecasting was then carried out for each of the JTC & ATC locations by applying the relevant growth rate projections derived from the '*National Transport Model Update: Travel Demand Forecasting Report'* (December, 2019) prepared for Transport Infrastructure Ireland. In this regard, it has been submitted that while the construction phase is expected to last from 2025 until 2028, a forecast year of 2025 has been chosen because the percentage impact of the expected volume of construction traffic will be highest in this year thereby showcasing the largest relative impact that could occur.

8.5.4. Having established the baseline traffic conditions for a construction year of 2025, Section 14.4 of the EIAR proceeds to consider the potential effects of construction-related traffic on the road network on the basis of the estimated number of construction trips (a summary of which is provided in Chapter 5 of the EIAR). In this regard, it is of relevance to note that the trip generation attributable to the movement of construction staff / workers has been considered separately from that resulting from HGV traffic.

8.5.5. Although the total number of construction workers across the entirety of the site is not expected to exceed 171 No. at any one time (as per Table 14.15 of the EIAR), it has been emphasised that these staff will be spread across five construction compounds. Moreover, it is anticipated that these workers will travel to each of the compounds by private vehicle from where they will consolidate to a smaller number of light goods vehicles to travel to specific construction locations along the cable route. Furthermore, on the basis that the workers will need to arrive at their respective locations before goods vehicles can be of any use at the construction sites, it is considered that the movement of workers will not overlap with HGVs and

thus HGVs have been considered separately and in isolation from the traffic generated by the movement of construction staff. Accordingly, in light of the very low number of vehicles expected to be required for the movement of construction workers, and the dispersed locations of the worksites, it has been submitted that the traffic resulting from worker movements will be 'Negligible' and of 'Short Term' effect.

8.5.6. Given the comparatively low number of staff to be deployed on site during the construction works, the fact that it is not possible at this stage of the process to determine the travel routes of individual workers to each of the construction compounds, and noting that the workforce will be spread across five main compounds (with an estimated peak of 63 No. workers to be based at the Central Compound during Q2 of 2025), I am amenable to the approach taken by the applicant in its assessment of the traffic impact attributable to construction staff and the conclusions drawn from same. In effect, I am satisfied that the impact of construction staff movements across the wider site will be of negligible significance in terms of contributing to overall traffic volumes on the surrounding road network.

8.5.7. In relation to HGVs, I would draw the Board's attention to Section 14.4.1.2 of the EIAR wherein it is stated that the volumes of HGV traffic have been estimated based on the construction programme (Table 5.4 of the EIAR presents the estimated traffic movements associated with installation of the underground cable) while their distribution has been assumed to be the same as the baseline distribution of traffic. These estimations of expected construction trips were then compared to baseline traffic flows to identify any periods where the increase in traffic would likely exceed standard thresholds. Consideration was also given to other potential effects resulting from the additional traffic (for example, driver delay, road safety, and community severance) which have been identified and their significance assessed by reference to the relevant guidance.

8.5.8. In order to undertake as robust an assessment of the traffic impacts as possible, the following scenarios were assessed:

- Scenario No. 1 - The maximum impact of construction traffic in the immediate vicinity of each TTM section when it is assumed to be actively under construction;

- Scenario 2 – The cumulative impact of construction traffic on the local road network as a result of adjacent TTM sections being actively under construction at the same time; and
- Scenario 3 – The impact of construction traffic on the wider network during the period of the construction programme which generates the greatest overall volume of construction vehicles.

8.5.9. In Scenario 1 the percentage impact of construction vehicles in the immediate vicinity of each TTM section was calculated on the basis of the maximum daily construction vehicle trips and the 2025 background traffic forecasts. From a review of the results set out in Table 14.16, it is apparent that the percentage increase in traffic flows resulting from the additional construction traffic will be below the 10% threshold value at all of the TTM sections (the 10% threshold being derived from the Institute of Environmental Management and Assessment's *'Guidelines for the Environmental Assessment of Traffic and Movement'* and Transport Infrastructure Ireland's '*Traffic and Transport Assessment Guidelines'* as set out in Section 14.2.2.1 wherein it has been determined that any changes in traffic volumes below this level will not give rise to any discernible environmental impact). Therefore, the impacts of construction traffic near each TTM section have been held to be 'Minor' and of 'Temporary Effect'.

8.5.10. Scenario 2 considers the potential cumulative impacts on the local road network should adjacent TTMs be active at the same time resulting in a localised concentration of HGV movements with Table 14.17 identifying five such locations. At four of these locations the cumulative impacts are each expected to last for only a single day while the low number of construction trips at Locations 2, 3 & 4 is such as to consider the impacts arising to be 'Negligible and of 'Brief' effect. The cumulative daily construction trips generated by adjacent TTMs are greater at Location No. 1 (Section 1 – Woodland & Section 2 - R156) and Location No. 5 (Section 30 - R412 & Section 32 – Dunstown) where works will be carried out simultaneously at each of the substations and along an adjacent section of regional road and, therefore, a more detailed analysis of both locations has been undertaken to assess whether any impacts arise at road and junction level.

8.5.11. Plate 14.3 of the EIAR shows the peak construction traffic flows at Location No. 1 as a percentage of the baseline 2025 traffic volumes on each of the road links. In two instances the traffic turning movements are predicted to exceed the 10% threshold, however, given that the roadways in question are in a rural area and are not near any significant settlements, it has been submitted that the impacts at these turns will be negligible and that the percent impact is due to low background traffic levels. In addition, it has been suggested that the combination of the 9 No. passing bays proposed along TTM Section 2 and the low levels of construction traffic predicted along this link (not exceeding 3% of baseline traffic) will ensure that the additional construction traffic trips will not cause significant impacts. It has thus been concluded that the impacts at Cumulative Location No. 1 will be 'Minor' and of a 'Temporary Effect'.

8.5.12. In relation to Location No. 5, all of the peak construction flows as a percentage of the baseline 2025 traffic figures are shown to be below 10% and thus would not be considered significant. It is also noted that the roads examined are located in a predominantly rural area and that neither of the regional roads (i.e. the R448 & R412) provide for direct access to the nearby village of Two Mile House with the result that no construction traffic will pass through that settlement. Furthermore, full road closures (with local access arrangements) and diversions will be in place along TTM Section 30 when the peak flows are expected, although construction traffic will be expected to access the site from either side of the closure. Based on the foregoing the cumulative impacts at Location No. 5 are expected to be 'Minor' and of 'Brief' effect.

8.5.13. The remaining Scenario 3 considers the impact of construction traffic on the wider network when the overall volume of construction vehicles will be at its greatest. In this respect, it has been forecast that 430 No. construction daily vehicle trips will be generated by TTM Sections 1, 2, 11, 23 & 27 and these have been collectively distributed across the study area network with the percentage impacts calculated at each of the traffic survey locations. At all locations the percentage increase in traffic flows is predicted to be below the 10% threshold, although it is acknowledged that there may be occasions when localised cumulative impacts will arise (as have been assessed in Scenarios 1 & 2). It has also been submitted that the 430 No. maximum trip generation will only last for a period of two weeks with the daily volume of

construction traffic over the course of the construction programme being projected to be less. Therefore, it has been put forward that Scenario 3 represents a worst-case scenario in terms of network-wide construction traffic impacts which can be categorised as 'Negligible' and of 'Temporary Effect'.

8.5.14. The EIAR proceeds to identify those roads (identified as receptors in Table 14.19) that will form part of the potential construction access route delivery network during the overall network peak period (previously assessed under Scenario 3) and assigns a 'sensitivity' rating to each having regard to the existing condition and ability of the roads to accommodate HGV traffic, along with characteristics identified as part of the baseline review. The report subsequently assesses the magnitude of impact attributable to the proposed development on severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation, and road safety considerations. Having determined that the magnitude of the impacts on the foregoing considerations will be negligible in all instances, these have been reviewed in the context of the various receptor sensitivities (Table 14.27) to gauge the significance of the construction phase traffic effects. With the exception of the receptor at JTC 26 (R445 Millenium Park / M7 Motorway on / off slips), which has been assigned a 'High' sensitivity rating with the result that the significance of the effects arising has been deemed to be 'Minor' for all the identified impacts, all other construction phase traffic effects are predicted to be 'Negligible'.

8.5.15. In summary, the EIAR has determined that the additional traffic generated during construction of the proposed development will result in increased traffic flows on the surrounding roads leading to the work sites and temporary construction compounds, however, on the basis that the predicted traffic increases are not thought to be considerable (with the predicted flows well within the practical operating capacity of the roads in question), the estimated increases in traffic are expected to have a 'Minor' to 'Negligible' significance effect on the identified receptors (as set out in Table 14.27).

8.5.16. In addition to the overall trip generation consequent on the proposed development and the associated impact on traffic volumes across the affected road network, the construction activities themselves, with particular reference to those 'in-road' sections of the cable route (totalling 43.6km in length), will also have more overt impacts on traffic and transportation patterns in the area. For example, certain

aspects / sections of the works will require partial and / or full road closures along the cable route, several of which will result in traffic diversions (the impact of these road closures is summarised in Table 14.28 of the EIAR which details the duration of the closure, the diversion distance, the journey time increase, driver delay, and the duration of the effect). Other impacts to road users include the delay / diversion of public transport (although rail routes will be unaffected), construction works directly impacting on active travel considerations (i.e. pedestrian and cycling routes), and the need for certain users to utilise alternative routes to maintain their operations (e.g. revised haulage routes to the Drehid Landfill to avoid road closures).

8.5.17. Having reviewed the available information, I would concur with the applicant's assessment that the construction impacts of the proposed development on traffic and transport considerations are broadly minor or negligible and of temporary effect given the interim nature of the construction works. Furthermore, I am satisfied that the operation of the development will not have any discernible impacts on traffic and that any impacts arising from maintenance-based traffic will be temporary, small-scale, localised and capable of being effectively managed by adherence to well-established traffic management protocols. Notwithstanding that the construction impacts arising are generally minor or negligible and of temporary effect and therefore do not require specific mitigation, the traffic management measures required to facilitate construction of the proposed development, such as the proposed road closures and diversion routes, will be implemented through an approved Traffic Management Plan. In this regard, I would draw the Board's attention to Appendix 5.1: '*Traffic Management Plan'* of the EIAR which details the control measures required and splits the cable route into a series of 31 No. Temporary Traffic Measures (TTM) Sections that will allow for further refinement of the temporary traffic management by the appointed contractor in collaboration with the Roads Authorities during the post-consent detailed design process (or in response to any conditions attached to an approval) with the aim of reducing the overall impact to road users etc. This Plan provides the overall context for the finalisation of the precise methodologies and control measures and is intended to function as an iterative document during the construction works whereby adverse effects on the road network and local communities will be avoided or minimised.

8.5.18. With implementation of the temporary traffic measures set out in the Traffic Management Plan, it has been submitted that the residual effects of the 'in-road' temporary traffic management measures will impact on driver route choices and cause some delays due to traffic diversions, however, in the majority of cases the driver delay impact is considered to be of no significance (i.e. 'Negligible' or 'Minor') and of either 'Brief' or 'Temporary Effect', with the exception of along TTM Section 1.02 (an approximate 4km length of the R156 Regional Road in Co. Meath) where there will be a temporary driver delay impact of 'Moderate' significance (lasting approximately seven working days) resulting from a proposed single lane closure and an associated HGV diversion of c. 27km.

8.5.19. More generally, while there is an acknowledgement of the localised inconvenience caused by the construction works along the cable route and the traffic diversions, it has been emphasised that although the overall construction period will extend over several months, all construction access routes will only be affected during certain periods and therefore any impacts will be on a temporary basis. Moreover, the temporary traffic management measures aimed to facilitate construction of the proposed development are intended to minimise disruption and will be implemented through the adoption of a regulated and approved TMP.

8.5.20. On balance, I would concur with the analysis set out in the EIAR and the supporting particulars and I am satisfied that the proposed development will not have any unacceptable direct, indirect, or cumulative impacts in terms of traffic or transport considerations. Any effects arising are generally negligible or of minor significance and of temporary effect and can be mitigated to an acceptable extent through adherence to the proposed temporary traffic management measures.

8.5.21. With respect to the submission by a third-party observer (Mr. Patrick Murphy) that several of the roadways along the proposed UGC route are of insufficient width to allow for the installation of the ducting and / or chambers, I would reiterate that the applicant has employed a detailed step-by-step process to inform the selection of the UGC route as proposed. Section 4.3 of the EIAR sets out the route alternatives that were examined (the design of which was informed by a series routing principles which included avoiding motorways; maximising the use of national, regional and local roads; avoiding going off-road, through private land and through agricultural land where possible; and minimising the overall length of the route). A comparative

evaluation subsequently determined that Option 'A' was the Emerging Best Performing Option (BPO) as it scored more favourably in terms of deliverability and socio-economics. This option was then re-examined to refine the route as far as possible to remove any wider areas (corridors) and to provide more certainty on the specific location while a final series of refinements culminated in the selection of the UGC route as proposed in the subject application. In this regard, it is noteworthy that Section 4.4.3 of the EIAR states that the refinement of the design was driven by environmental surveys and assessment, feedback from the public and statutory bodies, environmental considerations (such as protected species, hedgerows, impacts to landowners and agricultural land), and other considerations such as ground conditions and technical issues, including road width.

8.5.22. Notable examples of the UGC route having been amended to take account of specific road constraints include the off-road section between Woodland substation and the R156 Regional Road (because local roads in the area were deemed unsuitable due to two road bridges which did not have sufficient depth for the cable trench) and the off-road routing at Millicent (as narrow roads in the area made both routing of the cable and the siting of joint bays challenging). It is also of note that the proposed UGC route has sought to follow the regional road network wherever possible so as to avoid minor / local roads. In this respect, it is apparent that the selected UGC route option has made considerable efforts to avoid in-road locations where particular constraints, such as the carriageway width, could impede on the deliverability of the project.

8.5.23. Upon review of the submitted plans and particulars, and having conducted a site inspection, I am unconvinced by the suggestion that several of the roadways along the proposed UGC route are of insufficient width to accommodate the installation of the necessary ducting etc. Furthermore, any implication that the carriageway of the public road at a given location along the route should be of such width as to allow for uninterrupted traffic movements while construction works are in progress is entirely unreasonable, especially as the laying of utilities / services in the public road is accepted practice, subject to the implementation of appropriate traffic management measures during the course of any construction activities.

8.5.24. Specific concerns have been raised by Kildare County Council as regards the arrangements proposed for the crossing of the Dublin – Cork / Limerick railway line

by the underground cable. In this regard, although it is proposed to route the cable along an existing vacant pipe / duct which passes through the Irish Rail bridge over the Sallins Bypass (identified as 'Sallins Bypass Structure No. 3' on Drg. No. 321084AH-JAC-ZZ-XX-DR-K-2156: '*Site Location Map'*: Sheet 56 of 74), it appears that the Council's acceptance of such an arrangement is contingent on the applicant obtaining the written approval of Irish Rail for any use of the pipe. The Council has also noted that no viable alternative has been presented to cross the railway line in the event that (a) the existing pipe is not an option and (b) approval is not received from Irish Rail. In response, the applicant has confirmed that both Irish Rail and Kildare County Council have been consulted on the proposed crossing of the rail bridge and that there is an agreement in principle in place for use of the bridge, subject to detailed design in the post-consent phase following confirmatory site investigations prior to the commencing main construction (as is supported by the accompanying correspondence received from Irish Rail which confirms that it is agreeable in principle to the use of the existing pipe / duct through the east wingwall of the railway bridge as a means of passing the proposed underground cable below the Dublin - Cork railway line). Accordingly, there would appear to be broad agreement between the relevant parties as regards the proposed routing of the UGC through the existing railway bridge structure on the Sallins Bypass and I am satisfied that any outstanding matters may be addressed as part of the final detailed design and by way of the applicable third-party consent / approval mechanisms.

8.5.25. In relation to the proposed siting of temporary construction compounds and laydown areas on Canal Road (alongside the Sallins Bypass) to the north and south of the Dublin – Cork / Limerick railway line (Construction Laydown Areas Nos. 1 and 2, Chainage 39750: Off the Osberstown Road), Kildare County Council has indicated that not only will direct access to these areas not be possible off the Sallins Bypass but that any alternative access via Canal Road (even on a temporary basis) is also objectionable on the basis that both Canal Road and the local road network are unsuited to the increased traffic volumes and heavy loads likely to be generated by the construction works. It seems likely that the prohibition on direct access from the Sallins Bypass stems from a desire to preserve the uninterrupted operation of this important piece of infrastructure, however, the objection to access from Canal Road states that neither of the associated approach routes via Sallins Village or the

Osberstown Road has the capacity to accommodate the increased volumes of traffic while localised constraints include the junction from Osberstown Road onto Canal Road and the old railway bridge on Canal Road which has both height and width restrictions. Broader objections to the siting of the proposed compounds also include topographical considerations, the presence of an open drain and attenuation area used for road drainage purposes, and the potential to impact on the railway line.

8.5.26. In response to the foregoing, the applicant has submitted that the Canal Road works area was the subject of detailed discussions with the Council and it was understood that all technical requirements had been met. It has also been emphasised that the proposed working areas are to be used solely for works associated with the crossing of the railway line and that they will generate noticeably less construction traffic than the main compounds given the absence of any site offices or larger elements. In addition, the off-road working areas are intended to minimise disruption to traffic flows along the Sallins Bypass as it would otherwise be necessary to close both southbound lanes of the roadway to provide a suitable working area with the result that traffic would have to be diverted through Sallins or a contraflow provided on the northbound carriageway. Further reference has been made to the temporary nature of the impacts arising and that post-consent discussions could address any outstanding matters.

8.5.27. The stated purpose of the proposed temporary construction compounds and laydown areas as set out in Section 5.5.6: '*Temporary Construction Compounds'* of the EIAR (and as confirmed by the applicant in response to the submission received from Kildare County Council) is to accommodate works associated with the routing of the UGC through the Irish Rail bridge over the Sallins Bypass (identified as 'Sallins Bypass Structure No. 3' on Drg. No. 321084AH-JAC-ZZ-XX-DR-K-2156: 'Site Location Map': Sheet 56 of 74). In this regard, I am satisfied that there appears to be a reasonable and rational explanation for the siting of the proposed compounds etc. from first principles, particularly as it has been expressly stated that the works areas will not be used for the storage of materials or for site offices thereby differentiating them from other temporary construction compounds proposed elsewhere along the development route. Secondly, the provision of these working areas seemingly negates any requirement to close both southbound lanes of the bypass in order to provide a suitable working area. By reference to Table 14.28: *'Summary of Lane and*

Road Closures Impacts Across the Construction Period' of the EIAR (as informed by the "*Traffic Management Plan'* included at Appendix 5.5 of that document), it can be confirmed the Temporary Traffic Management Measures proposed within TTM Section 1.19: 'Sallins Bypass' will involve the closure of a single southbound lane for a duration of 4 No. days. This lane closure will only occur during Phase 2 of the works (the excavation and installation of ducts) with Phases 1 & 3 being carried out from a temporary 'in-verge' construction platform. In the event the proposed off-road working areas were not to be allowed, it appears that the only alternative means of providing a safe / suitable working space for the installation of the UGC etc. would necessitate the closure of both southbound lanes of the bypass with the result that traffic would have to be diverted through Sallins or a contraflow provided on the northbound carriageway. Accordingly, the off-road working areas as proposed would seem to minimise overall traffic disruption along the bypass for the comparatively short duration of the Phase 2 works.

8.5.28. While objections have also been raised to the siting of the working areas on topographical grounds and the potential for interference with existing drainage / attenuation works and / or the railway line, in my opinion, the change in ground levels is not insurmountable (particularly as the lands in question would appear to have previously been used for construction purposes with access via Canal Road) while a review of the submitted particulars shows that neither of the temporary construction compounds will impinge on the existing attenuation pond or the railway embankment. Any remaining concerns as regards possible interference with existing roadside drainage or an open drain could be addressed post-consent by way of condition.

8.5.29. Having established the acceptability in principle of the off-road working areas at the locations proposed, it remains to be determined whether it would be appropriate to access them via Canal Road. In this respect, it is perhaps of relevance at the outset to note that temporary construction compounds would appear to have been in place broadly at the locations proposed during construction of the Sallins Bypass with access points onto Canal Road (as evidenced by available aerial photography). While I am not in a position to speculate on the actual nature or volume of construction-related traffic which utilised these accesses onto Canal Road, the presence of those works areas would lend credence to the broader acceptability of

the subject proposal. With respect to the proposed access arrangements, I would concur with the Council that it would be preferable not to provide direct access from the bypass so as to minimise the impact of any intrusive works such as interference with the existing road restraint systems alongside the railway bridge while other constraints include the difference in ground levels between the bypass and the works areas south of the railway bridge. By extension, and in the absence of any reasonable alternative, the only remaining practical option is to access the proposed compounds from Canal Road.

8.5.30. With respect to the suggestion that both Canal Road and the approach routes via Sallins Village or the Osberstown Road do not have the capacity to accommodate the traffic volumes and heavy loads likely to be generated by the construction works, I am cognisant that Canal Road itself is subject to weight limit of 3.5 tonnes while the old railway bridge spanning its carriageway has both height (3.76m) and width restrictions. Similarly, the limited carriageway width of Osberstown Road and the height restrictions resulting from the M7 Motorway and R445 Millenium Road overbridges (along with its use as a popular walking route) would negate the suitability of this roadway as a possible haul route to the proposed construction compounds. However, I am inclined to conclude that these constraints will not in themselves prohibit access to the proposed construction compounds and laydown areas but will instead require the implementation of suitable traffic management / mitigation measures.

8.5.31. Although Kildare County Council has raised concerns as regards the adequacy of the junction of Canal Road with Local Road No. L2006 to accommodate the movement of construction traffic, it must be noted that this junction was relocated and reconstructed as part of the recently completed Sallins Bypass project and therefore I would suggest that it would be entirely reasonable to expect this existing junction to comply with all minimum design standards. Nevertheless, it will be necessary for any construction traffic travelling along Canal Road to adhere to the signposted vehicle limitations as part of an agreed Construction Traffic Management Plan. In terms of routing construction traffic to Canal Road, it is my opinion that the roadway (serving Osberstown Cottages) between the R407 Regional Road and Local Road No. L2006 would appear to have sufficient capacity in terms of carriageway width etc. to facilitate construction traffic, subject to suitable

management measures being put in place, particularly at Osberstown Bridge. In addition, it would seem possible to route traffic eastbound to Canal Road via Local Road No. L2006 and the R409 Regional Road (although this would have the effect of extending the overall haul route). Consideration should perhaps also be given to the possibility of allowing for some aspect of access to the proposed compounds from the Sallins Bypass during the partial closure of the southbound carriageway as part of the works or to accommodate abnormal loads.

8.5.32. Given that both Canal Road and Local Road No. L2006 would appear to have previously accommodated some element of construction traffic during the building of the Sallins Bypass, the intended use of the working areas for purposes related solely to the crossing of the railway line, the reduced traffic impact attributable to the limited usage and temporary nature of the works area, the desirability of minimising disruption to traffic flows along the Sallins Bypass, and as the implementation of an agreed Construction Traffic Management Plan will serve to minimise and mitigate the impacts arising, I am satisfied that the surrounding road network can accommodate access to the works areas as proposed alongside Canal Road, subject to conditions.

8.5.33. With regard to the Council's concerns about the location of Joint Bay No. 53 and the need to maintain the integrity of the existing road restraint system, I would have reservations that any attempt to relocate this joint bay could have wider repercussions as regards the siting of other joint bays along the cable route. Joint bays are located at average intervals of 745 m along the route of the UGC (although shorter intervals may occur where the route alignment is more complex) and there is a separation distance of approximately 790m between Joint Bays 52 & 53 and approximately 700m between Joint Bays 53 & 54. It would appear that the siting of Joint Bay 53 is intended to coincide with the location of the temporary construction compounds / laydown areas off Canal Road and the routing of the UGC through the railway bridge. This concentration of activities would seem rational given the need to minimise overall disruption along the Sallins Bypass. While I would concede that the installation of Joint Bay 53 may require some degree of interference with the existing road restraint system (such as the roadside concrete barrier), I am satisfied that any concerns as regards the precise siting and design of Joint Bay 53 could be resolved by way of condition as part of the post-consent detailed design stage.

8.6. **Archaeological and Architectural Heritage (Jigginstown House / Castle):**

8.6.1. The route of the UGC is required to cross the Grand Canal (and the R445 Regional Road) within the built-up area of Naas town and this is proposed to be achieved by way of Horizontal Directional Drilling (HDD) between the Naas Sports Centre to the north and an area of land located alongside the Jigginstown Castle complex to the south (please refer to Drg. Nos. 321084AH-JAC-ZZ-XX-DR-K-2162 & 2163). This element of the works will require the provision of temporary compounds to accommodate the launch and reception pits for the HDD boring equipment and to facilitate logistics and storage works (identified as Temporary HDD Location 6). The process of HDD involves a drilling rig boring a pilot hole between one side of the crossing to the other and uses a bentonite drilling fluid to support the borehole during construction and to carry away flushings. The drill bit is kept on its planned alignment using surveyors and sensors which are to be constantly monitored by the drill rig operator. Once the pilot hole is completed, it will be reamed in a number of passes to enlarge the hole to the required bore size to enable the cable ducts to be pulled through. The specialist drilling team will constantly monitor this operation, including checking the actual load stress matches the designed load stresses and monitoring for any voids or changes in geological conditions.

8.6.2. A number of concerns have been raised by the Department of Housing, Local Government & Heritage and the Office of Public Works as regards the proposal to undertake various works, including the siting and operation of an HDD compound, the laying of underground cabling, and the installation of a joint bay (JB60) with a permanent joint bay access track, in such close proximity to the Jigginstown Castle complex (the remains of the house itself (KD019-033001-) is a National Monument in the ownership of the Minister (NM 528) while the wider curtilage is subject to a Preservation Order (3/2000) that encompasses KD019-032--- (Gatehouse); KD019-03301- (House – 17th Century); KD019-033002- (Enclosure); KD019-033003- (Designed landscape – formal garden); KD019-033004- (Kiln – lime); and KD019-034---- (Castle – tower house). It should also be noted that KD019-033005- (Midden) is located at the Jigginstown Castle complex and while the EIAR has suggested that it has been removed or is no longer in situ, it would nevertheless fall within the confines of Preservation Order 3/2000. These monuments are subject to statutory protection under Section 14 of the National Monuments (Amendment) Act, 1930-2014. In addition, ‘Jigginstown Castle and Environs’ has been designated as a

protected structure (Ref. NS19-058) in the Naas Local Area Plan, 2021). Both submissions have sought to emphasise the considerable national / international importance of the Jigginstown complex from an archaeological, architectural and cultural heritage perspective as well as the particular vulnerability of the structure of Jigginstown House to disturbance given its fragile ruined condition.

8.6.3. It is noted that no Advance Archaeological Geophysical Survey or Advance Archaeological Test Excavations have been undertaken for the entire UGC route, however, particular concerns arise as regards the possible impact of the groundworks proposed within the curtilage of the monument as defined by the Preservation Order (No. 3/2000) i.e. the excavations associated with the installation (and operation) of the HDD compound along with the laying of the UGC and the provision of a joint bay with an associated access road. Given the short duration of occupation at Jigginstown Castle and the wider extent of its historic landscape, it has been suggested that it is extremely probable that subsurface archaeological remains associated with the castle survive in the greenfield area to the immediate east of the site where the HDD compound is proposed. Accordingly, concerns have been expressed that the proposed development could have a significant direct (and indirect) negative and permanent impact on the monument through the disturbance / destruction of undiscovered subsurface features.

8.6.4. In addition to the foregoing, both the Department and the OPW are concerned about the potential impacts of vibration, in particular caused by the HDD, but also by general construction operations, notwithstanding that the EIAR has considered the effects of vibration on the upstanding remains of Jigginstown Castle. Reference is made to the fragile ruined state of Jigginstown House, particularly at its eastern end alongside the proposed works area, and the construction detail of the brick elements of the external walls which makes them very vulnerable to movement (with testing having revealed the brickwork to be weaker than the binding mortar). In this regard, it has been suggested that the vibration assessment contained in the EIAR may have underestimated the fragility of the historic structure and its ability to withstand the vibration and excavations proposed adjacent to the masonry ruin. Other concerns related to the proposed HDD operations are the location of the underground structure and its possible impact as regards increasing ground water pressure to the

masonry footings / historic vaulted basement of the castle as well as the possible impact of de-watering of the site causing soil shrinkage.

8.6.5. Reservations have also been raised as regards the visual impact of the works on the setting and landscape features of the Jigginstown Castle complex along with the potential for the proposed development to undermine future plans for those lands in the ownership of Kildare County Council to the east of the complex (upon which the development works are proposed). This latter concern seemingly relates to the future provision of access to the site from the east and the preservation of the national monument, however, the OPW has elaborated further by stating that it has been in discussions with the Council in recent years as regards the proposed use of the area in question under licence by the OPW as an access and builder's compound and for the provision of car parking and a parkland setting for the National Monument. In effect, the compatibility of the proposed development (with particular reference to its above-ground features such as the joint bay and communications chamber covers etc.) with any future park and / or car park on the lands has been questioned.

8.6.6. With regard to the potential direct impact of the proposed development on terrestrial archaeology (including any subsurface remains) at Jigginstown Castle, Section 13.4 of the EIAR fails to specifically assess any such impacts (with only indirect temporary residual impacts of 'Slight' to 'Imperceptible' significance on 6 No. assets of the wider castle complex recorded in Table A13.2.1: '*Impacts on Archaeology during Construction'* of Appendix 13.2: '*AACH Impact Assessment'* of the EIAR), although there is a wider acknowledgment that construction works, including the excavation of the cable trench and joint bays, temporary passing bays, and the excavation of temporary launch and reception pits for HDD (such as HDD Location No. 6), could directly impact on any previously unknown archaeological remains present on lands required for the proposed development. The applicant's response to the submissions received has sought to address the matter further by clarifying that the proposed development will entail the carrying out of works within the extent of Preservation Order 3/2000 and thus the proposal could have a direct and permanent impact on any archaeological remains present on those lands adjacent to the Jigginstown complex. The magnitude of this impact has been assessed to be 'Medium' and 'Significant' and, therefore, mitigation is proposed by way of undertaking an archaeological geophysical survey and archaeological test trenching in advance of

construction (but post-consent) to inform the design of any wider archaeological excavation required which would align with the wider mitigation measures presented in Section 13.5 of the EIAR. In support of this approach, it has been submitted that while Jigginstown Castle was likely located within more extensive grounds and gardens, from the sources considered as part of the EIAR, there are no extant landscape features within the application site boundary to the east of the castle. It has also been suggested that later disturbance from previous development and utilities is likely to have removed or damaged any such features.

8.6.7. Given the decision to route the proposed UGC through those lands to the immediate east of the Jigginstown Castle complex (within the confines of a Preservation Order) and the nature of the associated construction activities, including ground disturbance, excavations and horizontal directional drilling, it is regrettable that further on-site archaeological investigations were not carried out in advance of the finalisation of the proposed design and in support of the planning application. However, it is clear that considerable effort has been expended on the identification of various technological and routing options for the strategically important grid upgrading works and that the selection of the chosen development has been deemed to represent the Best Performing Option having regard to criteria such as deliverability and the need to avoid certain constraints. The result of this process is a need to cross the Grand Canal at the subject location by means of HDD. In this respect, I would suggest that the alignment of the UGC & HDD as proposed and the resultant siting through vacant lands in the ownership of the Local Authority derives in part from certain practicalities. For example, HDD is likely to be simpler and less expensive if in a straight line; the desire to minimise disruption to the heavy trafficked intersection of the R445 & R447 Regional Roads; and the space constraints arising from a preference to avoid encroaching on private property (both at the junction of the R445 & R447 and alongside the Naas Sports Centre).

8.6.8. On balance, while I would acknowledge the potential for the presence of unknown features of archaeological interest within that part of the development site alongside the Jigginstown Castle complex on lands subject to a Preservation Order, along with the national / international importance of the Jigginstown complex from an archaeological, architectural and cultural heritage perspective, I am amenable to the works as proposed, subject to the implementation of appropriate mitigation, including

the completion of archaeological geophysical survey and archaeological test trenching in advance of construction to inform the design of any wider archaeological excavation required, and archaeological monitoring.

8.6.9. In relation to the potential vibrational impact on Jigginstown House due to the proposed construction works, with particular reference to the HDD, I would refer the Board to Section 13.4.1 of the EIAR (as informed by Plate 9.2 of Chapter 9: *'Noise and Vibration*') which states the following:

> *'The potential for structural damage to Jigginstown Castle (AY_39; a National Monument assessed to be of High significance) from vibration resulting from HDD has been assessed. Using British Standard (BS) 5228-2, the castle was assessed to be a potentially vulnerable building, and the vibration threshold for structural damage during construction was identified to be 3mm/s peak particle velocity (PPV). PPV is the instantaneous maximum velocity reached by the vibrating element as it oscillates about its rest position and is measured in millimetres per second (mm/s). The vibration assessment (see Chapter 9) assessed a PPV of 6mm/s within 24m of HDD locations and at least 3mm/s between 24m and 42m from HDD locations during construction. Given that Joint Bay 60, including HDD launch pit, at Jigginstown will be located approximately 50m to the south of Jigginstown Castle, the PPV would be less than 3mm/s. Based on this, the vibration level has been assessed to be below the threshold for structural damage and therefore no impact from vibration was assessed'.*

8.6.10. For clarity, it should be noted that the main activities likely to result in perceptible vibration levels during the construction phase are Vibratory Compaction and HDD (with HDD being the greater source). Therefore, my assessment has focused on these elements of the works.

8.6.11. In its submission, the OPW has noted that at a distance of 50m the anticipated vibration level from HDD will be marginally below the British Standard (BS) 5228-2 accepted threshold of 3.0 PPV for 'potentially vulnerable buildings', however, it has been suggested that the ruined and exposed state of Jigginstown House is such as to render it more fragile / vulnerable that the accepted definition of a 'potentially

vulnerable building'. Similar concerns as regards the ability of the structure to withstand the vibration and excavations proposed have also been raised by the Department.

8.6.12. In response to these concerns, the applicant has referred to the conservative parameters utilised in the vibration assessment while stressing that the HDD will be conducted at depth as well as lateral distance from the castle. Moreover, given the vulnerability of the monument, it has been submitted that the mitigation measures proposed include a commitment that Jigginstown House be considered individually to ensure that the monument is safeguarded.

8.6.13. At this point, I would draw the Board's attention to the measures set out in Section 9.5 of the EIAR, with particular reference to the following as regards HDD activities:

- The routing, depth, locations, and drilling types of the proposed HDD works will be carefully selected to avoid / mitigate effects. Confirmatory structural surveys will be completed pre-construction at all structures that will be crossed or that are within 50m of the HDD locations. These locations will be monitored by the Contractor during the HDD works, and the surveys will be repeated post-construction. In the extremely unlikely event of repairs being required, these will be immediately undertaken in agreement with the structure owner.
- During the HDD works, constant monitoring by the specialist drilling team will be carried out. The volume of cuttings produced will also be monitored to ensure that no over-cutting takes place and that hole cleaning is maintained. The nature of the cuttings will also be monitored to understand the ground conditions as the drilling progresses. This CEMP will be updated pre-construction with further information about HDD monitoring when the Contractor is appointed and will be agreed with stakeholders including the Local Authorities, TII, Waterways Ireland, and Irish Rail.

8.6.14. On the basis of the applicant's own submission, the proposal to undertake pre-construction confirmatory structural surveys of all structures within 50m of the HDD location along with monitoring during the HDD works is intended to include Jigginstown Castle. Any such surveys and monitoring could be incorporated into an agreed Construction and Environmental Management Plan which provides for

engagement with stakeholders such as the Office of Public Works (while provisions could also be put in place as part of such a plan as regards ground water pressure and any de-watering activities).

8.6.15. In summary, it is my opinion that there are inherent difficulties in predicting the vibration levels likely to be experienced at a specific location given the number of variables involved, however, the information provided would appear to indicate that the proposal will fall within accepted thresholds (for both vibratory compaction and HDD) while adherence to the stated mitigation measures should serve to minimise the risks posed to Jigginstown House. A further level of protection is afforded by the requirement to obtain Ministerial Consent for works proximate to the monument and to comply with any conditions that may be attached. Accordingly, I am amenable to the proposed development, subject to conditions.

8.6.16. With respect to the visual impact of the works on the setting and landscape features of the Jigginstown Castle complex, any intrusion from construction plant will be temporary and will not continue into operation. Furthermore, although the concrete cap for Joint Bay 60 and the associated access track will result in some visual intrusion into the setting of Jigginstown Castle, I would concur with the findings of the EIAR that the magnitude of this permanent indirect impact will be 'Very Low / Negligible' and of 'Imperceptible' significance given that the joint bay etc. will be low-lying and largely screened by intervening buildings or trees along the eastern boundary of the castle complex.

8.6.17. In reference to the purported plans for the future redevelopment of those lands in the ownership of Kildare County Council to the east of the Jigginstown Castle complex and the concerns as regards the compatibility of the proposed development with same, I would draw the Board's attention to Objective BH 4.3 of the Naas Local Area Plan, 2021 which seeks to *'Progress in conjunction with the OPW the preservation and development of Jigginstown Castle (National Monument) as an attraction and training facility and make it and the surrounding area accessible to the public as a tourist / training / open space attraction and to support the preparation of a Conservation Plan for Jigginstown Castle'*. It is unclear to what extent this particular objective has been progressed to date, however, given the limited nature of the proposed development works at this location and as the lands will be broadly reinstated to their original condition following removal of the working platform for the

HDD works, I am unconvinced that the proposal could not be suitably integrated into any redevelopment for the area in line with Objective BH 4.3 (which could potentially include the provision of a car park and / or parkland in keeping with the desire of the OPW).

8.7. **Other Issues:**

8.7.1. *River Liffey Crossings at Millicent and Sallins:*

Contrary to the assertion by a third-party observer (Mr. Patrick Murphy), the proposed cable routing does not use the old stone bridge at Millicent to cross the River Liffey as evidenced by the submitted plans and particulars. In this regard, I would draw the Board's attention in particular to Drg. No. 321084AH-JAC-ZZ-XX-DR-K-2152: '*Site Location Map: Sheet 52 of 74',* which clearly shows the UGC crossing of the River Liffey at this location being achieved by way of Horizontal Directional Drilling as opposed to any use of the historic bridge, and Section 4.4.2.3 of the EIAR wherein it is stated that the shallow deck depth of the old stone bridge was a contributory factor in the selection of the cable route as proposed at Millicent.

8.7.2. With respect to the proposed cable routing via the new bridge constructed over the River Liffey as part of the Sallins Bypass (as shown on Drg. No. 321084AH-JAC-ZZ-XX-DR-K-2153: '*Site Location Map: Sheet 53 of 74'*), Section 5.5.2.8 of the EIAR states that following consultations with Kildare County Council it was agreed that the Sallins Bypass could be utilised for the cable route which will generally follow the footpath along the eastern boundary of the road. This routing will allow for the crossing of the River Liffey via Sallins Bypass Structure No. 6 with the required works necessitating the removal of existing surfacing, the placing of the cable ducts, and the resurfacing of the footpath and carriageway so that the layout and appearance of the bridge will remain as currently designed (save for a slight increase in the footpath and carriageway width to accommodate the cable route).

8.7.3. This position is corroborated by the submission received from Kildare County Council which confirms that following consultations with the Kildare National Roads Office, it has been agreed, subject to detailed design approval, that the Sallins Bypass can be utilised for part of the cable route. The applicant's response similarly reiterates that there is an agreement in place and that further consultations will be

undertaken with the Council to agree the detailed design of the Sallins Bridge crossing.

8.7.4. Given that both the applicant and Kildare County Council are in agreement as regards the principle of routing the proposed UGC across ‘Sallins Bypass Structure No. 6’, and in the absence of any evidence to the contrary, in my opinion, it would seem reasonable to conclude that there is no overt constraint to the bridge crossing as proposed which would necessitate further assessment.

8.7.5. *Utility Crossings:*

The proposed UGC route will cross existing structures, utilities and watercourses at various locations and in this regard the applicant has indicated that significant consultations have already taken place with utility providers to the effect that arrangements will be in place to ensure that utilities are crossed by the UGC safely and with appropriate methodologies to support and protect existing assets. Cable crossings are to be facilitated by either open cut trenching or Horizontal Directional Drilling and location-specific details of the crossings of known utilities are provided in Appendix 5.2 of the EIAR (the identification of crossings along the proposed UGC route is based on consultations with utility providers, site walkovers, field studies and review of publicly available information). All crossings are to be confirmed at the detailed design stage and mitigation implemented as required (please refer to Section 16.5.1.1 of the EIAR which details the mitigation measures proposed for the protection etc. of utilities during construction, including a commitment that the appointed contractor will carry out localised confirmatory surveys, prior to excavation works, to verify the results of pre-construction assessments). The EIAR further acknowledges that while the potential for any undiscovered utilities proximate to the works is low, should any such utilities be encountered, the mitigation proposed in the EIAR will be implemented.

8.7.6. Further clarity is provided in the submission received from Uisce Éireann as regards the crossing of its assets wherein it is stated that the proposed works can be facilitated, subject to valid agreements being put in place (including the execution of ‘Build Over Agreements’ and / or ‘Diversion Agreements’, where required, prior to any works taking place). Moreover, it has submitted that there is no objection to the proposal provided that all UÉ assets are protected during the construction and

operation phases of the development; adequate separation distances are provided between UÉ assets and the underground cable; and any development near UÉ assets is carried out in compliance with UÉ Standard Details and Codes of Practice.

8.7.7. Therefore, on the basis of the foregoing, I am satisfied that adequate information has been submitted with the application to allow for an informed assessment of the potential impact of the proposed development on existing utilities / services.

8.7.8. Construction Waste Management:

Specific concerns have been raised by a third-party observer as regards the quantity of waste requiring off-site disposal as a result of the proposed development along with the volume of other material to be imported to the site. More specifically, it has been submitted that the excavation and disposal of this waste along with the importation of further material will require Environmental Impact Assessment.

8.7.9. An estimation of the quantities of material and waste arising during the construction phase is set out in Appendix 5.5: '*Construction Resource Waste Management Plan'* of the EIAR which has informed the analysis contained in Chapter 19: '*Waste'* of the main text (Vol. 1) of the Environmental Impact Assessment Report. These figures have been transposed into Table 19.8: '*Materials Balance Estimate'* of the EIAR which provides an estimation of the likely quantities of materials and waste requiring import and export during the construction phase with soils and fill material making up the majority of surplus material requiring management (either as a waste or as a by-product) in accordance with best practice and the mitigation measures outlined in Section 19.5 of the EIAR. It has been estimated that approximately 108,000m^2 of material will be imported to the site with 121,000m^2 being exported off-site. Overall, it is anticipated that c. 281,000m^2 of compacted material will require transportation during the construction phase (with this figure including for all engineered road fill arising from the in-road excavations along the cable route which will be reused but nevertheless require movement around the proposed development due to construction space constraints) and the traffic impact of same is assessed in Chapter 14: '*Traffic and Transport'* of the EIAR.

8.7.10. In its assessment of the environmental impact of this aspect of the project, the EIAR has determined that without mitigation there will be a 'Negative', 'Significant' and 'Short-Term' effect attributable to the generation of waste during the construction

phase. Therefore, it is proposed to implement a series of mitigation measures with a view to reducing the effects identified (please refer to Section 19.5 of the EIAR). This will include the implementation of a Construction Resource Waste Management Plan (CRWMP) (with periodic reviewing and updating of the document as necessary throughout the construction phase) for the duration of the construction works to ensure that all waste is managed in accordance with the Waste Management Act, 1996 (as amended) and relevant EPA guidance. The governing principle of this plan will be to minimise the quantity of waste material generated and disposed of and to ensure that it is managed in accordance with the waste hierarchy, with an emphasis on reuse, recycling and recovery of material over disposal, where feasible. Actions to reduce and / or prevent the generation of excess surplus materials and waste throughout the construction phase will include design optimisation, careful planning of material use and storage, good practice with respect to the handling of materials, and the reuse of material on site will be prioritised e.g. the option to manage any surplus clean soil and stone material as a by-product in accordance with Article 27 of the European Communities (Waste Directive) Regulations, 2011 will be investigated.

8.7.11. With the implementation of the mitigation measures proposed, given the relatively small quantity of surplus material estimated to be generated and the requirement for imported material, and as this quantity will be generated across the approximately 42 No. months construction phase, it has been submitted that no significant residual impacts are expected as a result of the proposed development, either during the construction or operational phase.

8.7.12. On balance, I am satisfied that the waste management implications of the proposed development have been adequately assessed in the EIAR and I would concur with the conclusions therein that the significance of the residual impacts arising will be negligible.

9.0 Environmental Impact Assessment

9.1. Statutory Provisions:

9.1.1. In accordance with Section 182A(5)(a) of the Planning and Development Act, 2000, as amended, the applicant (EirGrid) was requested to submit further information in

relation to the effects on the environment of the proposed development and to provide commentary on the following items:

I. The amount of field boundary to be removed (if any),

II. The amount of re-contouring to take place (if any),

III. The area of land to be restructured by removal of field boundaries (if any), and

IV. The length of private roads to be constructed.

9.1.2. The request also advised that should the applicant be of the opinion that the proposed development would fall within either of the aforementioned classes of development, and is not sub-threshold, it would be required to provide an environmental impact assessment report to facilitate the Board conducting EIA as per section 172 of the Planning and Development Act, 2000, as amended.

9.1.3. In response, the applicant subsequently confirmed that (from a legally cautious perspective) the proposed development would require Environmental Impact Assessment by reference to Class 1(a) of Schedule 5, Part 2, of the Planning and Development Regulations, 2001, as amended, as the proposed works would include the removal of hedgerow exceeding a 4km length of field boundary. It was further stated that the scoping and preparation of an Environmental Impact Assessment Report (EIAR) had commenced.

9.1.4. On 13th March, 2024 the applicant submitted its formal response to the request for further information which included an Environmental Impact Assessment Report and an updated AA Screening Report and Natura Impact Statement.

9.1.5. Therefore, the proposed development is of a type and scale that requires environmental impact assessment under the Planning and Development Act, 2000, as amended, by reference to Class 1(a) of Schedule 5, Part 2, of the Regulations as follows:

- Projects for the restructuring of rural land holdings, undertaken as part of a wider proposed development, and not as an agricultural activity that must comply with the European Communities (Environmental Impact Assessment) (Agriculture) Regulations 2011, where the length of field boundary to be removed is above 4 kilometres, or where re-contouring is above 5 hectares, or

where the area of lands to be restructured by removal of field boundaries is above 50 hectares.

9.1.6. The Environmental Impact Assessment Report has been prepared by Jacobs Engineering Ireland Limited (March, 2024) and serves to supplement the 'Planning and Environmental Considerations Report' (April, 2023) submitted with the initial application documentation.

9.2. EIA Structure:

9.2.1. This section of the report comprises the environmental impact assessment of the proposed development in accordance with Planning and Development Act, 2000 (as amended) and the associated Regulations, which incorporate the European directives on environmental impact assessment (Directive 2011/92/EU as amended by 2014/52/EU). Section 171A of the Planning and Development Act, 2000 (as amended) defines EIA as:

a. consisting of the preparation of an EIAR by the applicant, the carrying out of consultations, the examination of the EIAR and relevant supplementary information by the Board, the reasoned conclusions of the Board and the integration of the reasoned conclusion into the decision of the Board, and

b. includes an examination, analysis and evaluation, by the Board, that identifies, describes and assesses the likely direct and indirect significant effects of the proposed development on defined environmental parameters and the interaction of these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.

9.2.2. Article 94 and Schedule 6 of the Planning and Development Regulations, 2001, as amended, set out requirements on the contents of an EIAR. This section of the report is therefore divided into two sections.

9.2.3. The first section assesses compliance with the requirements of Article 94 and Schedule 6 of the Regulations. The second section provides an examination, analysis and evaluation of the development and an assessment of the likely direct and indirect significant effects of it on the following defined environmental parameters, having regard to the EIAR and relevant supplementary information:

- population and human health,
- biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,
- land, soil, water, air and climate,
- material assets, cultural heritage and the landscape,
- the interaction between the above factors, and
- the vulnerability of the proposed development to risks of major accidents and/or disasters.

9.2.4. The assessment provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Board's decision, should it agree with the recommendation made.

9.3. Compliance with the Requirements of Article 94 and Schedule 6 of the Regulations, 2001:

9.3.1. The applicant's EIAR is presented in five volumes as follows:

- Volume 1: Non-Technical Summary
- Volume 2: Main Text
- Volume 3: Appendices
- Volume 4: Figures
- Volume 5: Supporting Documents

9.3.2. Compliance with the requirements of Article 94 and Schedule 6 of the Regulations is assessed below.

Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)
A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development (including the additional information referred to under section 94(b).
A comprehensive description of the proposed development is contained in Chapter 5 of the EIAR (as supplemented by the accompanying appendices and

associated drawings). Information is included on the siting, design and construction of the underground cable as well as the works to be undertaken at the Woodland and Dunstown substations. Details have also been provided in relation to features such as joint bays, cable crossings, access arrangements and the construction methodology (including the provision of passing bays, temporary construction compounds, the use of Horizontal Directional Drilling, and the implementation of temporary traffic management measures). The EIAR also describes the construction, reinstatement and operation phases of the development. I am satisfied that the description and details provided are adequate to enable informed decision-making.
A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b).
An assessment of the likely significant direct, indirect, and cumulative effects of the proposed development is carried out across the technical chapters of the EIAR (Chapters 7 – 20) with Chapter 21 summarising the cumulative impacts and environmental interactions. I am satisfied that the assessment of significant effects is comprehensive and robust and enables decision making.
A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development (including the additional information referred to under section 94(b).
The iterative design of the proposed development has sought to minimise the potential for environmental impacts while further mitigation measures to address potential adverse effects are identified in the technical studies. These, and arrangements for monitoring, are summarised in Chapter 22 (Summary of Mitigation Measures), Appendix 5.1 (Traffic Management Plan), Appendix 5.4 (Construction and Environmental Management Plan) and Appendix 5.5

(Construction Resource Waste Management Plan) of the EIAR. Mitigation measures comprise standard good practices and site-specific measures and are largely capable of offsetting significant adverse effects identified in the EIAR.
A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment (including the additional information referred to under section 94(b).
Chapter 4 of the EIAR describes the reasonable alternatives considered. These include the 'do-nothing' scenario, technological and routing alternatives (with initial high-level route alternatives and route option assessment), and design alternatives (culminating in the development of a 'Best Performing Option' and subsequent refinements to that 'Best Performing Option)'. It includes reference to the six-step framework to grid development employed by the applicant as set out in the supporting documentation contained in Volume 5 of the EIAR i.e. Step 2A (Long List Options Report), Step 2B (Short List Options Report), Step 3A (Emerging Best Performing Technology Options Report), Step 3B (Best Performing Technology Option Report), Step 4A (Emerging Best Performing Route Option Report) and Step 4B (Best Performing Route Option Report). Section 4.3 of the EIAR sets out the route alternatives that were considered with Step 4A examining four proposed route options for an UGC between the Dunstown and Woodland substations (the design of which was informed by a series of routing principles which included avoiding motorways; maximising the use of national, regional and local roads; avoiding going off-road, through private land and through agricultural land where possible; and minimising the overall length of the route). A comparative evaluation subsequently determined the Emerging Best Performing Option (BPO) before Step 4B refined the route further with additional revisions (following further localised route option investigations) informing the UGC route as proposed. I am satisfied, therefore, that the

applicant has studied reasonable alternatives in assessing the proposed development and has outlined the main reasons for opting for the current proposal before the Board and in doing so the applicant has taken into account the potential impacts on the environment.
Article 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2).
A description of the baseline environment and likely evolution in the absence of the development.
A detailed description of the baseline environment is included in each technical chapter of the EIAR and I am satisfied that this is sufficient to enable the assessment of likely effects and to enable decision making.
A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved
The methodology employed in carrying out the EIA, including any forecasting methods, is set out in each of the individual chapters assessing the environmental effects. The applicant has indicated in the different chapters of the EIAR where difficulties have been encountered (technical or otherwise) in compiling the information to carry out EIA, however, I am satisfied that there are no significant deficiencies that prevent decision making.
A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.
This issue is specifically dealt with in Chapter 18 of the EIAR. Likely significant effects of the development on the environment, arising from its vulnerability to

risks of major accidents and/or disasters addressed, are described in Chapter 18 of the EIAR and are adequate to support decision making.
Article 94 (c) A summary of the information in non-technical language.
This information has been submitted as a separate standalone document (Volume 1: Non-Technical Summary). I have read this document, and I am satisfied that it is concise and comprehensive and is written in a language that is easily understood by a lay member of the public.
Article 94 (d) Sources used for the description and the assessments used in the report
The sources used to inform the description and the assessment of the potential environmental impact are set out in each relevant chapter of the EIAR. I consider these sources to be generally appropriate and sufficient.
Article 94 (e) A list of the experts who contributed to the preparation of the report
The various experts (along with that individual's relevant expertise and qualifications) who contributed to the report are set out in Table 1.3 of Chapter 1 of the EIAR. I am satisfied that the EIAR has been prepared by experts with competency in the technical subject areas.

9.3.3. Consultations:

The application has been submitted in accordance with the requirements of the Planning and Development Act, 2000 (as amended) and the Planning and Development Regulations, 2001 (as amended) in respect of public notices. In addition, the applicant has carried out public consultation and engaged with stakeholders at various stages of the project design and application process as described in Chapters 1 & 5 of the 'Planning Report' and Chapters 1 & 3 of the EIAR.

Submissions have been received from statutory bodies and third parties and are considered in this report, in advance of decision making.

I am satisfied, therefore, that appropriate consultations have been carried out and that third parties have had the opportunity to comment on the proposed development advance of decision making.

9.3.4. Compliance:

Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and supplementary information provided by the developer is sufficient to comply with article 94 of the Planning and Development Regulations, 2001, as amended. The details of my assessment of likely significant effects are below.

9.4. Assessment of Likely Significant Effects

9.4.1. This section of the report sets out an assessment of the likely environmental effects of the proposed development under the following headings, as set out in Section 171A of the Planning and Development, Act 2000, as amended:

- Population and human health.
- Biodiversity, with particular attention to the species and habitats protected under the Habitats and Birds Directives (Directive 92/43/EEC and Directive 2009/147/EC respectively).
- Land, soil, water, air and climate.
- Material assets, cultural heritage and the landscape.
- The interaction between these factors.
- The vulnerability of the proposed development to risks of major accidents and/or disasters.

9.4.2. In accordance with section 171A of the Act, which defines EIA, this assessment includes an examination, analysis and evaluation of the application documents, including the EIAR, and the submissions received, and identifies, describes and assesses the likely direct and indirect significant effects (including cumulative effects) of the development on these environmental parameters and the interaction of these. Each topic section is therefore structured around the following headings:

- Issues raised in the appeal/application.
- Examination of the EIAR.

- Analysis, Evaluation and Assessment: Direct and indirect effects.
- Conclusion: Direct and indirect effects.

9.5. **Population and Human Health (General):**

9.5.1. **Issues Raised:**

The submission received from the Health Service Executive / Environmental Health Officer has raised issues relevant to population and human health by requesting that the results of any monitoring of electromagnetic fields generated by the development (along with a non-technical explanation of same) be made available to local receptors. It also notes that other environmental issues (noise / air / soil / water) with the potential to impact on population and human health considerations are addressed separately in various chapters of the EIAR and that statutory emission limit values will ensure protection of the environment and public health. It further states that if mitigation measures are fully implemented, the potential impact on sensitive receptors, including residential properties, should be minimised and public health protected.

9.5.2. **Examination of the EIAR:**

Context

Chapter 7 of the EIAR describes the potential effects of the proposed development on population and human health considerations, however, it has also been informed by the assessments undertaken in respect of other environmental topics, such as air quality, noise and vibration, traffic & transport, and landscape & visual impacts, which are addressed separately in the relevant chapters of the EIAR (along with the supporting appendices and figures contained in Volumes 3 & 4 of that document) and this report. It sets out the relevant guidelines and policy framework, methodology, baseline conditions, potential effects, mitigation measures, and the residual effects.

9.5.3. The methodological approach for the assessment is stated to have been undertaken in compliance with the 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' (Environmental Protection Agency, 2022)', 'Environmental Impact Assessment of Projects: Guidance on the Preparation of the Environmental Impact Assessment Report' (European Commission 2017), and

the ‘Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment/ (Government of Ireland, 2018). The assessment thus focuses on the following topics:

- Population
    - Demographic and Economic Profile;
    - Land Use; and
    - Tourism, Recreation and Amenities.
- Human Health

9.5.4. Given the different spatial scales that apply to the assessment topics, different study areas have been adopted as follows:

- *Tourism, Recreation and Amenities*: The area within 300m of the site boundary (considered to be the likely distance in which potential impacts associated with air quality, noise and vibration, visual, and traffic are likely to occur and potentially impact on amenity);
- *Land Use*: The footprint of the proposed development (i.e. within the application site boundary);
- *Demographic and Economic Profile*: The entirety of Counties Meath and Kildare which is considered to be the extent to which potential impacts on the economy will be experienced; and
- *Human Health:* A 300m radius extending from the proposed cable route and substations (this is considered sufficient to capture the exposure impacts of the proposed development such as construction noise and air pollution, as well as encompassing any potential impacts on land uses. Beyond this distance it has been submitted that there is no likelihood of exposure to significant noise or air pollution impacts while the intervening distance and land use is likely to reduce the physical and psychological influence of the proposed development on local communities with the result that no significant effects on human health are anticipated).

9.5.5. The parameters for the assessment are refined further in the appraisal methodology with certain matters having been scoped out by reference to factors that include the

nature and extent of the proposed development. In this regard, it is of particular relevance to note that as the electricity infrastructure will be required to operate under the public exposure guidelines issued by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), it has been determined that there will be no direct impact on human health from electromagnetic fields (EMF) and, therefore, these have been scoped out from further assessment as no significant effects on health as a result of exposure to EMF are considered likely.

9.5.6. **Baseline**

Baseline conditions are described in Section 7.3 of the EIAR with the analysis of the receiving environment having been conducted with regard to the study area and those settlements in which the proposed development will be situated (including Naas, Sallins, Prosperous & Kilcock) as well as those in close proximity. The proposed development site itself extends between the Dunstown 400kV substation in Co. Kildare and the Woodland 400kV substation in Co. Meath with approximately 37.8km of the proposed UGC located in Co. Kildare and the remaining 15.1km in Co. Meath.

9.5.7. From a demographic perspective, the application site lies within the Mid-East Region which has experienced high levels of population growth with CSO data indicating that the populations of both Kildare and Meath increased by c. 5.9% between 2011 and 2016 (with the Eastern and Midlands Regional Spatial and Economic Strategy recording a population growth of 15% between 2006 and 2016, exceeding the State average of 12% over the same period). The population is predicted to increase further with an overall population growth allocation of 500,000 for the region by 2040.

9.5.8. In terms of land use, both the Woodland and Dunstown substations are located in relatively remote areas generally characterised by an agricultural landscape, with the exception of an area of commercial peat extraction to the north of Prosperous. Similarly, the majority of the UGC route will pass through open countryside, save for those locations where it will extend along the periphery of urban settlements such as Kilcock, Sallins and Naas. It is estimated that 82% of the UGC will be laid along public roads with the remaining 18% traversing (predominantly agricultural) privately held lands (in order to avoid specific constraints).

9.5.9. With respect to tourism, recreation and amenity, both Kildare and Meath have a very strong tourism and leisure offering, including heritages site of international importance, infrastructure for outdoor recreation, and areas of natural beauty. Significant tourism and recreational interests include natural and built heritage attractions, festivals, and equestrian, golfing and outdoor adventure activities such as angling and water sports. A number of important tourism centres, including castles, racecourses, golf clubs and equestrian centres are located within 300m of the proposed UGC centreline, a notable example of which is Jigginstown Castle at Naas West, Co. Kildare. In addition to the foregoing, there are a wide range of publicly accessible community, sports and arts facilities across both counties. There are 32 No. community and commercial receptors located within 300m of the UGC (as outlined in Appendix 7.1) while all residential, commercial and community (including recreational) receptors are shown in Figure 7.1

9.5.10. The baseline data provided as regards the economic profile of the study area includes reference to the CSO 2016 census which recorded employment levels of 83,259 No. and 95,947 No. persons in Co. Meath and Co. Kildare respectively (with Table 7.7 of the EIAR providing a breakdown of employment by industry per county). In this regard, it is notable that a considerable proportion of the workforce commutes to areas outside of the counties with the more than 53% of people commuting outside of Co. Meath for employment purposes being indicative of a clear disparity in the location of jobs. It is anticipated that the labour force will continue to increase and thus the aim of Local Economic and Community Plans is to foster employment creation and to maximise the jobs potential in appropriate locations throughout the two counties to achieve greater alignment between population and employment opportunities.

9.5.11. With regard to human health, cognisance should be taken of the details provided regarding the baseline environment in terms of air quality, noise, land, water, cultural heritage, traffic, material assets, and landscape as set out in the relevant environmental topic chapters of the EIAR. More generally, the wider health of the population living in Counties Kildare and Meath and the health of the local population living in close proximity to the proposed development (in the settlements of Kilcock, Prosperous, Sallins and Naas) has been recorded as higher than the national average.

9.5.12. In relation to electromagnetic fields (EMFs), it has been emphasised that these are a common part of modern life given the prevalence of electrical appliances etc. while there are already approximately 320km of underground transmission cables in Ireland, with multiples of this figure of underground cabling associated with the lower-voltage distribution system. It has been further stated that the transmission grid is designed and developed to operate in accordance with stringent safety recommendations, including those of the International Council on Non-Ionising Radiation Protection (ICNIRP) and EU guidelines on exposure of the general public to EMF.

9.5.13. **Potential Effects**

Section 7.4 of the EIAR describes the potential effects arising during the construction and operational phases of the proposed development and focuses on population (demographic and economic profile; land use; and tourism, recreation & amenities) and human health considerations. Likely significant effects of the development, as identified in the EIAR, are summarised in Table PHH1 below.

Table PHH 1: Population and Human Health	
Project Phase	**Potential Effects**
Do-Nothing	- No changes to amenity, accessibility & severance, land use / land take or the economy - a 'neutral' impact. - The health status of the population would be expected to change in line with current trends as set out in 'Health in Ireland' (Department of Health, 2022).
Construction	*Demographic and Economic Profile:* - Reduced amenity and potential health effects as a result of stress and fears, a loss of community cohesion due to severance caused by road closures, and reduced access to facilities. - Loss of amenity as a result of combined noise, air quality, traffic and visual impacts during construction works. *Land Use:* - Temporary road or lane closures negatively impacting on traffic flows / movements in the area. - Temporary negative effects on housing, land use and facilities given that the majority of the UGC will be installed within the existing road network. - The removal / loss of trees to facilitate the development. *Tourism, Recreation and Amenities:*

	- Temporary road or lane closures and associated diversions negatively impacting on accessibility to community facilities / services / amenities, including local schools. *Human Health:* - Potential temporary, short-term, adverse effects associated with the natural environment and nuisance (such as noise and dust emissions). - Reduced amenity and potential health effects as a result of stress and fears, a loss of community cohesion due to severance caused by road closures, and reduced access to facilities.
Operation	*Demographic and Economic Profile:* - No long-term effects are predicted due to the 'unmanned' nature of the development. *Land Use:* - No long-term effects are predicted on land use and facilities as the majority of the UGC will be located in the road network. *Tourism, Recreation and Amenities:* - No long-term effects are predicted due to the nature of the development. *Human Health:* - All underground cables are required to operate in accordance with existing public exposure guidelines from the ICNIRP and, therefore, no significant effects arise for local communities.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential cumulative impacts. A summary of the 21 No. *'other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR does not identify any significant effects (pre-mitigation) on '*Population'* or '*Human Health'* considerations during either the construction or operation phases of the development. However, the following potentially significant cumulative impacts as regards other environmental topics ('Material Assets' and

	'*Waste'*)' are considered to be of relevance to 'Population' and / or 'Human Health' considerations: *Material Assets:* - CP1021 East Meath – North Dublin EirGrid project and 221550 – CP1194 Woodland Substation Redevelopment Project: Positive, Significant and Long-Term cumulative impact on the regional electricity network when each development and the proposed development are operational. *Waste*: - Assorted infrastructural and other large-scale projects: Negative, Significant and Short-Term cumulative impact on the annual capacity of waste management facilities within the region during any overlapping construction phase years.

9.5.14. **Mitigation**

Mitigation measures are outlined in Section 7.5 of the EIAR. The principal measure to ensure that adverse effects on the environment and local communities (including population and human health considerations) are avoided or minimised during the construction phase of the proposed development comprises the implementation of the environmental management and mitigation measures set out in the Construction and Environmental Management Plan (CEMP) included at Appendix 5.4 of the EIAR. All construction activities will be managed through the CEMP and all works are to be carried out in accordance with the relevant national legislation and best practice guidance (as detailed in the topic-specific chapters of the EIAR) with a view to minimising any short-term, adverse effects such as nuisance attributable to construction noise, vibration, dust emissions and traffic management. The CEMP also provides for the implementation of the Traffic Management Plan included at Appendix 5.1 of the EIAR, which will be updated following detailed design (in accordance with the CEMP) and consultation with Kildare County Council and Meath County Council to mitigate construction traffic on the public road network.

9.5.15. Further traffic management measures intended to mitigate potential traffic disruption as regards access to local amenities and services are as follows:

- Construction of the cable trench between Chainage 7395 and 14750 will be subject to the traffic management measures set out in Section 22.9 of the

EIAR to ensure access for visitors and tourists is maintained to the Larchill Arcadian Gardens.

- Construction of the cable trench between Chainage 46190 and 51450 will be timed to minimise disruption to school traffic. This will include avoiding road and lane closures during the morning drop off and evening school pick up times and avoiding closures during school term times for those schools along the R448 (subject to programming).

9.5.16. With regard to the potential significant and short-term cumulative impact on the annual capacity of waste management facilities within the region during any overlapping construction phase years (when taken in conjunction with other projects), this is to be addressed by way of the mitigation measures set out in Section 19.5 of the EIAR which include the implementation of the Construction Resource Waste Management Plan detailed in Appendix 5.5 of the EIAR.

9.5.17. **Residual Effects**

With the implementation of mitigation measures (including monitoring), residual effects are set out in Section 7.6 and Table 7.10 of the EIAR. These provide that no significant residual effects on population or human health will arise.

9.5.18. **Analysis, Evaluation and Assessment: Direct and Indirect Effects**

I have examined, analysed and evaluated Chapter 7 of the EIAR and all of the associated documentation and submissions on file in respect of population and human health. I am satisfied that the applicant's understanding of the baseline environment, by way of desk and site surveys, is comprehensive and that the key impacts in respect of likely effects on population and human health as a consequence of the development have been identified.

9.5.19. With respect to the submission received from the Health Service Executive / Environmental Health Officer wherein it has been suggested that the results of any monitoring of electromagnetic fields generated by the proposed development (along with a non-technical explanation of same) should be made available to local receptors, I am unconvinced of the necessity for any such action given that the undergrounding of electricity cables is both commonplace and well-established practice in modern Ireland (as evidenced by the applicant's reference to the presence of approximately 320km of underground transmission cables nationwide

with multiples of this figure associated with the lower-voltage distribution system). Moreover, Section 7.3.7.1 of the EIAR states that the national transmission grid (of which the proposed development will form part) operates in accordance with stringent safety recommendations, including those issued by the International Council on Non-Ionising Radiation Protection which has reviewed the safety of EMFs and recommended limits on exposure that are below the levels where adverse effects might occur. It has also been confirmed by the applicant that all its electricity infrastructure is required to operate under existing public exposure guidelines issued by the ICNIRP with the result that there will be no direct impact on human health attributable to any EMF generated by the proposed development. Accordingly, the EIAR states that as no significant effects on health as a result of exposure to EMF are considered likely, the issue was scoped out from further assessment.

9.5.20. It is of further relevance to note that in 2024 EirGrid undertook a review of the electric and magnetic fields produced by overhead lines and underground cables across Ireland's transmission system, the results of which established that the levels recorded were below the restriction levels set by ICNIRP for both the magnetic and electric fields. To further demonstrate EirGrid's stringent safety precautions, regardless of the release of a new set of restriction levels by the ICNIRP in 2010 which provide for higher limits than the 1998 levels, it is my understanding that EirGrid continues to adhere to the stricter 1998 levels (derived from European Union Recommendation 1999/519/EC).

9.5.21. On balance, given that the proposed development will form part of the national transmission system and will therefore be required to operate in line with existing public exposure guidelines, and as the undergrounding of certain electricity cables is well-established in Ireland, in my opinion, the imposition of a requirement that the results of any monitoring of electromagnetic fields generated by the proposed development be made available to local receptors would seem to be an unnecessary and unwarranted deviation from established practices.

9.5.22. In addition to the foregoing, there is the potential for some short-term negative impacts on population and human health considerations during the construction phase of the development as a result of noise, vibration, dust & construction traffic, in addition to the broader nuisance caused by construction activities (e.g. road closures & traffic diversions). These are discussed in more detail in the relevant

EIAR chapters and it is anticipated that, subject to the careful implementation of the remedial and mitigation measures proposed, including a Construction and Environmental Management Plan (incorporating a traffic management plan), the likelihood of any significant adverse impacts will be avoided.

9.5.23. While I would concur with the findings of the EIAR as regards the likely impact of the proposed development on the foregoing aspects of population and human health, it is of relevance to note that there are various inter-relationships between effects on the human environment and effects on other aspects of the environment such as air and water quality. Accordingly, in order to avoid unnecessary repetition, I would refer the Board to my assessment of the specific implications of the proposal as regards soil, water and air quality etc. as set out elsewhere in this report.

9.5.24. **Conclusion: Direct and Indirect Effects (Population and Human Health)**

Having regard to the foregoing, I am satisfied that impacts predicted to arise in relation to population and human health will be avoided, managed, and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures, and through suitable conditions. I am therefore satisfied that the proposed development would not have any significant direct, indirect, or cumulative effects in terms of population and human health.

9.6. Population and Human Health (Noise and Vibration):

9.6.1. **Issues Raised:**

The Health Service Executive / Environmental Health Officer has commented on the potential impact of the proposed development by way of noise and vibration emissions. It notes the assessment of construction noise impacts according to BS 5228 '*Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1 Noise'* before referring to Table 9.8 of the Planning and Environmental Considerations Report (as submitted with the initial application documentation) which provides a summary of those receptors where the threshold of 65dB will be exceeded at times giving rise to a moderate to major impact (the Board is advised that the contents of the PECR have been largely superseded by those of the EIAR). The submission also refers to the potential impacts from vibratory compaction and the Horizontal Directional Drilling works and notes that several receptors have been identified as likely to possibly perceive minor to major impacts during the works

(although the applicant has asserted that these impacts will not be significant due to the duration of the works and will not result in any cosmetic damage to buildings).

9.6.2. In addition to the foregoing, both the Department of Housing, Local Government and Heritage and the Office of Public Works have raised concerns as regards the potential impact of vibration on Jigginstown Castle as a result of the Horizontal Directional Drilling and general construction works proposed to be carried out to the immediate east of the National Monument. This matter has already been examined in Section 8.6: *'Archaeological and Architectural Heritage (Jigginstown House / Castle)'* of this report.

9.6.3. **Examination of the EIAR:**

Context

Chapter 9.0 of the EIAR assesses the potential noise and vibration impacts in the context of current relevant standards and guidance. It sets out the relevant legislative and policy framework (including the relevant thresholds for the determining of significance), methodology, baseline conditions, potential effects, mitigation measures, and the residual effects following mitigation.

9.6.4. In assessing the potential for impacts on sensitive receptors, study areas extending up to 300m for construction noise and 100m for construction vibration from the proposed development have been adopted in accordance with the '*Design Manual for Roads and Bridges (DMRB) LA 111 Noise and Vibration'*. The study area for construction traffic noise is also derived from the DMRB and is defined as 50m from the carriageway edge of any public roads where there is the potential for an increase in the Basic Noise Level (BNL) of 1 dB(A) or more (the procedure for calculating a BNL is set out by the '*Calculation of Road Traffic Noise'* (CRTN) document). The potential noise and vibration effects themselves have been assessed according to BS5228 *'Code of Practice for Noise and Vibration Control on Construction and Open Sites' (Part 1: Noise & Part 2: Vibration*) while the construction traffic noise predictions have been undertaken using CRTN methodology.

9.6.5. Although operational noise impacts are not expected as a result of the proposed UGC, it has been accepted that the potential arises for a permanent increase in noise at local receptors close to upgraded / extended Woodland and Dunstown substations (attributable to the proposed installation of compensation reactors). In

this regard, an assessment has been carried out using the EPA's *'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)'* to predict whether the reactors are likely to result in permanent noise impacts at receptors close to the substations (with the areas around the substations considered to be of 'low background noise' given their rural location). No vibrational impacts are anticipated during the operational phase of the proposed development.

9.6.6. **Baseline**

Section 9.3 of the EIAR describes the baseline conditions along the proposed development site. These are likely to vary along its length with higher noise levels closer to transport infrastructure and during peak periods of transport activity. The main noise source is likely to be from road traffic (particularly where the proposed UGC route crosses over the M4 & M7 motorways and passes along main roadways), although other noise sources include rail noise (with the route crossing the Dublin - Cork and Dublin - Galway railway lines).

9.6.7. Strategic noise maps have been produced for the area under the requirements of the Environmental Noise Directive by the EPA for road, rail, airport and industrial noise. This mapping shows road traffic noise levels to be high at receptors in several parts of the study area where they are likely to be exposed to noise levels exceeding the BS5228-1 Category A thresholds. It also establishes that rail noise levels are elevated where the route crosses the Dublin - Cork railway line west of Sallins. The route does not cross any location where strategic airport or industrial noise mapping contours are present.

9.6.8. Further commentary is provided as regards the prevailing noise conditions at identified works areas along the route of proposed development (including the Woodland and Dunstown substations, the Temporary Construction Compounds, the Construction Laydown Areas, and the HDD compounds) and the proximity of the closest sensitive receptor. Typically, these locations are to be found in rural areas where the baseline noise environment is likely to be dominated by road traffic noise. Reference is also to the locations proposed for the joint bays and passing bays with the closest sensitive receptor to each of these features having been identified. Table 9.8 of the EIAR subsequently provides a breakdown of the 2,301 No. sensitive

receptors (mainly dwellings but also including primary and secondary schools, a health centre and a nursing home) within the 300m study area extending from the proposed development at specified buffer distances.

9.6.9. Baseline noise surveys have not been carried out as the approach has been to use the most stringent noise limits from BS 5228-1, known as Category A, to determine the magnitude of impact and the significance of effect.

9.6.10. There are no significant sources of vibration within the site boundary and while road traffic, particularly HGVs, may produce some vibration, it has been submitted that the levels generated are likely to be negligible and not perceptible by humans at sensitive receptors.

9.6.11. **Potential Effects**

Section 9.4 of the EIAR describes the potential noise and vibration effects arising during the construction and operational phases of the proposed development. Likely significant effects of the development, as identified in the EIAR, are summarised in Table NV1 below.

Table NV1: Noise & Vibration	
Project Phase	**Potential Effects**
Do-Nothing	The growth of traffic volumes along existing roads in addition to other noise sources (e.g. agricultural machinery, industrial sites etc.) will result in an increase in noise levels over and above the current baseline.
Construction	Noise modelling has established that the predicted noise levels from fixed works at the receptors identified in Table 9.9 will exceed the 65dB threshold for weekdays and Saturday mornings in the absence of mitigation. The potential significance of the effects arising will be 'Adverse', 'Temporary' and will range between 'Not Significant' and 'Significant'. The highest noise levels from daily construction activities along the UGC route will exceed the relevant threshold giving rise to a major impact. However, as the works will progress at a rate of 50m per day, the 10 No. days in any 15-day period is not likely to be exceeded and thus the effects are considered 'Adverse', 'Not Significant' and 'Temporary'. The highest expected construction traffic noise change is negligible and 'Neutral' and 'Not Significant'.

	The impact from vibratory compaction at residential receptors is not considered significant – the effects are considered 'Adverse', 'Not Significant' and 'Temporary'. The impact from vibratory piling at HDD4, HDD5 & HDD6 at residential receptors are 'Adverse', Moderate' to 'Significant' and 'Temporary'. Construction traffic is not expected to result in any perceptible ground borne vibration at receptors within the application boundary – 'Neutral' and 'Not Significant' impact.
Operation	The majority of the proposed development will make no perceptible noise or vibration. There are no receptors within 500m of the Woodland Substation and therefore no impacts are anticipated at this location. Noise modelling has established that the predicted noise level from the upgraded Dunstown substation will be comfortably below the 35dB night-time noise criterion when measured at the closest sensitive receptor (c. 290m distant) and thus the impact arising will be neutral and not significant.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. *'other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential cumulative impacts. A summary of the 21 No. '*other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR does not identify any significant effects (pre-mitigation) on '*Noise and Vibration'* considerations during either the construction or operation phases of the development.

9.6.12. **Mitigation**

Section 9.5 of the EIAR describes the mitigation measures proposed. It confirms that the construction works will comply with the recommendations of BS 5228-1 and sets out a series of mitigation measures that have been incorporated into the Construction and Environmental Management Plan contained at Appendix 5.4 of the EIAR. Notable measures to be implemented include the following:

- The installation of noise barriers around the HDD compounds:
    - HDD4 Ch. 22000 – Crossing of the Lyreen tributary of the River Liffey along the R407. The closest sensitive receptor is located around 18m away. Noise barriers will be placed on the perimeter of both the launch and reception HDD compounds to screen the receptors identified in Plate 9.1 of the EIAR;
    - HDD5 Ch. 37100 – Crossing of the River Liffey north of Sallins. The closest sensitive receptor is located around 68m away. Noise barriers will be placed on the northern perimeter of the HDD compound on the western bank of the River Liffey to screen the receptors identified in Plate 9.2 of the EIAR;
    - HDD6 Ch. 44600 – Crossing of the Grand Canal in Naas. The closest sensitive receptor is located around 32m away. Noise barriers will be placed on the northern perimeter of the southern HDD compound to screen the receptors identified in Plate 9.3 of the EIAR;
    - The noise barriers will be sited within the application boundary with the exact location, height and type of the barriers to be confirmed pre-construction and agreed with the local planning authority.
- Noise barriers will be designed to block the line of sight between the noise sources and the affected receptors (resulting in an approximate attenuation of 10dB as indicated in BS 5228-1);
- Noise barriers will comply with the standard EN 14388;
- The Contractor will be obliged to comply with Local Authority controls on noise and vibration during construction.
- The location of the noise barrier will be set out and agreed in advance of the works and designed to keep noise levels within the limits;

- The routing, depth, locations, and drilling types of the proposed HDD works will be carefully selected to avoid / mitigate effects. Confirmatory structural surveys will be completed pre-construction at all structures that will be crossed or that are within 50 m of the HDD locations. These locations will be monitored by the Contractor during the HDD works, and the surveys will be repeated post-construction. In the extremely unlikely event of repairs being required, these will be immediately undertaken in agreement with the structure owner;
- During the HDD works, constant monitoring by the specialist drilling team will be carried out. The volume of cuttings produced will also be monitored to ensure that no over-cutting takes place and that hole cleaning is maintained. The nature of the cuttings will also be monitored to understand the ground conditions as the drilling progresses. The CEMP will be updated pre-construction with further information about HDD monitoring when the Contractor is appointed and will be agreed with stakeholders including the Local Authorities, TII, Waterways Ireland, and Irish Rail;
- There is potential for some elements of the HDD works to extend into the evening and the night periods and advanced notice will be given to nearby residents when this is occurring;
- The Contractor will develop and implement a stakeholder communications plan prior to the commencement of construction to ensure residents understand the nature and duration of noise and vibration effects, and the measures that will be put in place to manage and reduce them.
- Only plant conforming with or exceeding relevant national or international standards (including BS 5228), directives or recommendations on noise or vibration emissions will be used.
- Construction plant will be maintained in good condition with regards to minimising noise and vibration emission;
- Plant will be operated and maintained appropriately, in compliance with manufacturer recommendations. All vehicles, plant and equipment will be switched off when not in use;

- Routes for the transport of construction materials, spoil and personnel will be carefully selected to reduce the risk of increased noise and vibration impacts during construction;
- Vehicle and mechanical plant / equipment used for the works will be fitted with effective exhaust silencers, to be maintained in good working order and operated in a way that minimises noise emissions;
- Construction plant and activities will be positioned to minimise noise at sensitive locations.

9.6.13. In relation to the potential for vibration levels to give rise to human discomfort, the following further measures are to be implemented during the construction phase:

- A clear communication programme will be established between the Contractor and the affected residents prior to works which may give rise to significant vibration effects. The nature and duration of works will be clearly set out in all communications;
- Activities capable of generating significant vibration effects in relation to human response will be restricted to daytime hours where practicable;
- Appropriate vibration isolation will be applied to plant where required and where feasible;
- Low vibratory or non-vibratory plant will be used when working close to a vibration sensitive receptor; and
- Vibratory equipment will be started up and turned off as far away from sensitive receptors as practicable.

9.6.14. **Residual Effects**

With the implementation of the mitigation measures specified, it is anticipated that the significance of the noise impact at HDD4, HDD5 & HDD6 will be reduced to ‘Adverse’, ‘Not Significant’ and ‘Temporary’. The residual effects of all other construction noise activities are considered to be ‘Adverse’, ‘Not Significant’ and ‘Temporary’.

9.6.15. With regard to construction vibration impacts, the significance of the impact at HDD4, HDD5 & HDD6 (attributable to vibratory piling) will be reduced to ‘Adverse’, ‘Not

Significant' and 'Temporary' with the mitigation measures in place. Residual effects in relation to all other construction noise activities are considered to be 'Adverse', 'Not Significant' and 'Temporary'.

9.6.16. Residual effects in relation to construction traffic on surrounding roads are considered 'Neutral' and 'Not Significant'.

9.6.17. No residual effects from noise or vibration impacts are expected during the operational phase of the development.

9.6.18. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

Having examined, analysed and evaluated Chapter 9 of the EIAR and all of the associated documentation and submissions on file in respect of noise and vibration considerations, I am satisfied that the applicant's understanding of the baseline environment is comprehensive and that the key impacts of noise and vibration (particularly on population & human health considerations as well as features of archaeological & built heritage interest) as a consequence of the development have been identified.

9.6.19. From a review of the available information, potential impacts are mainly associated with the construction phase of the proposed development arising from activities such as excavations, open cut trenching, cable pulling and jointing, reinstatement, Horizontal Directional Drilling, and general construction works etc. Indeed, it must be acknowledged that due to the nature of the construction activity to be conducted on site there is an inherent potential for the generation of increased levels of noise and vibration. Similarly, construction traffic movements along the public road network and within the site itself are likely to be a potential source of noise and vibration.

9.6.20. Although the noise prediction modelling undertaken as part of the assessment has determined that the noise levels from certain fixed construction activities (i.e. Horizontal Directional Drilling Compound Nos. 4, 5 & 6) will meet or exceed the relevant threshold (i.e. 65dB on weekdays, 7:00-19:00, and Saturdays, 07:00-13:00, as derived from BS 5228-1 Category A) for construction noise at several nearby sensitive receptors, and that in each instance the magnitude of the impact and the duration of the works will be such as to give rise to an adverse, temporary and moderate to significant / significant effect, the implementation of the mitigation measures identified (as incorporated into the CEMP) will be sufficient to reduce the

residual effect to a ‘Not Significant’ level. In this regard, I particularly note that the noise barriers proposed to be erected at HDD Compound Nos. 4, 5 & 6 are intended to block the line of sight between the noise source and the affected receptors with a view to providing an appropriate attenuation of 10dB. Given that the maximum predicted noise level likely to have a potentially ‘Significant’ effect (as per Table 9.9 of the EIAR) is stated to be 71dBLAeq,T, the 10dB attenuation provided by the proposed noise barriers should reduce this level (and others) to below the applicable 65dB threshold with the result that the effect arising can be reduced to ‘Not Significant).

9.6.21. For the purposes of clarity, although the highest predicted noise level of 76dBLAeq,T will occur at a receptor proximate to Joint Bay 67, the short duration of this impact at 7 No. days serves to reduce the effect to ‘Not Significant’.

9.6.22. With respect to construction noise emanating from those works which will progress at a daily rate along the route of the UGC, although the highest predicted noise levels of for the enabling works phase (79dB) and the Phase 2 works (83dB) will exceed the 65dB threshold, the construction activity is proposed to progress at a rate of 50m per day and, therefore, the impact will not exceed a period of 10 days in any 15-day period (in reference to the ‘Design Manual for Roads and Bridges (DMRB) LA 111 Noise and Vibration’) and thus will not be of significance as per EPA guidance.

9.6.23. In terms of construction traffic noise, calculations have shown that the highest traffic noise change along the 31 No. Temporary Traffic Management (TTM) Sections which make up the proposed UGC route will be 0.5dB. This is considered to be a negligible magnitude of impact according to the DMRB. Therefore, a ‘Neutral’ and ‘Not Significant’ impact is expected in relation to construction traffic on surrounding roads.

9.6.24. In relation to the potential for vibration effects from the proposed development, a precautionary approach has been taken with ground compaction assumed to be possible throughout the application site and vibratory piling considered a possibility at all the HDD compounds. Predicted vibration levels for steady state and start up / run down (transient) for both ground compaction and HDD works have been calculated using the formulae presented in Table E.1 of BS 5228-2. In combination with the number of receptors potentially affected within a set distance of the works

area and assessed against the criteria set out in the DMRB, these figures have informed an estimation of the potential significance of the impacts arising as set out in Tables 9.10 (Vibratory Compaction) and 9.11 (HDD).

9.6.25. By way of summation, it has been determined that no significant impacts will arise for human perception at nearby residential receptors and that no buildings are expected to experience any cosmetic damage as a result of vibratory compaction. With regard to the HDD works, it has been determined that the vibration impacts in relation to human perception at some residential receptors will be 'Moderate to Significant' given that the works at HDD4, HDD5 & HDD6 will take 60 days to complete (although no cosmetic damage to buildings is anticipated). In response, it has been submitted that the implementation of the mitigation measures set out in Section 9.5 of the EIAR (which will also form part of the Construction and Environmental Management Plan), including the issuing of advance notice to affected residents, will reduce the vibration impacts to 'Not Significant'.

9.6.26. Construction traffic is not expected to result in any perceptible ground borne vibration at receptors within the application boundary.

9.6.27. Given the inherent temporary duration and impact of the proposed construction works, coupled with the implementation of suitable measures to ensure best practice site management and the minimisation of any noise and vibration impacts arising, I am satisfied that the construction of the proposed development will not result in any significant impact on sensitive residential receptors in the surrounding area. Similarly, given the nature of the development proposed, I would not anticipate any significant noise or vibration impact during the operational phase.

9.6.28. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, I am satisfied that the impacts predicted to arise will be avoided, managed, and mitigated by the measures which form part of the proposed scheme, proposed mitigation measures, and through suitable conditions. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect, or cumulative impacts in terms of noise and vibration.

9.7. Biodiversity:

9.7.1. **Issues Raised:**

A third-party observer (Mr. Patrick G. Murphy) has raised concerns that no surveys were carried out of his lands to inform the preparation of the Natura Impact Statement and the planning application generally.

9.7.2. The submission received from Meath County Council refers to the significant hedgerow & tree removal proposed as part of the development and its potential impact on ecological corridors and the local landscape. It subsequently recommends that specific details of the proposed mitigation and compensatory planting be agreed in writing with the Planning Authority before making a series of further recommendations, including the need for the implementation of an Invasive Species Eradication and Management Plan.

9.7.3. **Examination of the EIAR:**

Context

Chapter 10 of the EIAR (as supplemented by Appendices 5.6, 10.1, 10.2, 10.3, 10.4 & 10.5 and Figure Nos. 5.2 - 5.3, 10.1 - 10.9 and 11.4 - 11.5) examines the potential effects of the proposed development on biodiversity and has been prepared in accordance with the requirements of the EIA Directive. Particular attention is made to species and habitats protected under the Habitats and Birds Directives as well as species protected pursuant to the Wildlife Act, 1976, as amended. It has been informed by an ecological impact assessment (comprising a desk-based study and field surveys as set out in Section 10.4) undertaken to determine the likelihood of significant adverse effects on ecological habitats and species of interest as a result of the proposed development. A separate Appropriate Assessment Screening Report and Natura Impact Statement have been prepared as regards designated European Sites.

9.7.4. The methodology is set out in Section 10.3 with different study areas having been adopted for each of the biodiversity (ecological) receptors to allow for the assessment of any potential impacts within the Zone of Influence of the proposed development (taking cognisance of the ‘source-pathway-receptor’ model of risk assessment). These are described in Table 10.1 although it should be noted that the study areas were widened in instances where potential or confirmed ecological features of interest were noted.

9.7.5. Tables 10.2 and 10.3 detail the various desk study data sources and ecological field surveys which have informed the assessment, although the following surveys were scoped out:

- *Amphibian and reptile presence / potential absence surveys*: Habitat suitability was used as a proxy for species presence (with the exception of 2 No. Smooth Newt eDNA surveys undertaken at Waterbodies WB19 & WB05). It has been assumed that amphibians and reptiles are present where suitable habitat is found unless otherwise stated;
- *Bats*: Only structures / trees to be directly impacted were subject to survey and as no structures were impacted none were surveyed;
- *Aquatic Receptors*. An aquatic habitat assessment was undertaken to identify the presence of suitable habitat for aquatic species. No electrofishing, invertebrate or macrophytes surveys were carried out. A combination of existing Water Framework Directive (WFD) publicly available data along with data record searches was used to inform decision making; and
- *Marsh Fritillary*: Surveys comprised checks for the presence of Devil's Bit Scabious. No searches for larval webs or adult butterflies were carried out. The species is assumed present where suitable habitat is found unless otherwise stated.

9.7.6. It has been acknowledged that ecological surveys are limited by a variety of factors which affect the presence of flora and fauna (for example, climatic variation, season and species behaviour) and that while evidence of a particular protected species may not always present during a survey, this does not mean in itself that the species is absent. Therefore, the surveys also record and assess the suitability of habitats to support species, and (where appropriate, for species with dynamic distributions) further pre-construction confirmatory surveys are proposed to verify any locations requiring additional mitigation. No major limitations were encountered and it has been submitted that the baseline data collected is sufficient to inform a robust and thorough assessment of potential impacts. In this regard, it should be noted that although a third-party observer (Mr. Patrick G. Murphy) has submitted that his lands were not surveyed (with a view to informing the preparation of the Natura Impact Statement and the application generally), Section 10.3.3.5 of the EIAR confirms that

where access to lands was unavailable, the identification of mammal signs (such as badger setts) etc. and habitat surveys were undertaken via binoculars and desk-based reviews (including aerial imagery) in accordance with CIEEM guidance.

9.7.7. **Baseline**

Section 10.4 of the EIAR provides a comprehensive description of the receiving environment along the route of the proposed development as well as within the various study area(s) on the basis of data derived from a desk study and on site / field investigations. The key baseline details can be summarised as follows:

9.7.8. *Desk Study:*

- By applying the 'source-pathway-receptor' model, all European Sites potentially within the Zone of Influence of the proposed development due to their connectivity (proximity / ecological / hydrological) were assessed with the following 2 No. sites having been identified (as per Table 10.4 of the EIAR):
    - The Rye Water Valley / Carton Special Area of Conservation (Site Code: 001398)
    - The River Boyne and River Blackwater Special Area of Conservation (Site Code: 002299)

  Although a further 14 No. European Sites are considered to be in the vicinity of the proposed development, it has been determined that these fall outside the Zone of Influence and thus no direct or indirect impacts are anticipated.
- Table 10.5 of the EIAR provides a summary of those Natural Heritage Areas (NHA) and Proposed Natural Heritage Areas (pNHA) located in the vicinity of the proposed development. Only the Royal Canal pNHA and the Grand Canal pNHA (which are directly crossed by the proposed UGC) are considered to fall within the zone of influence of the proposed development (due to the absence of any hydrological link with the remaining sites or the identified pNHA being upstream of the proposed development).
- The Harristown Candidate Natural Heritage Area (to the east of the Dunstown Substation) is afforded protection by the Kildare County Development Plan due to an historical survey conducted in 2012 which identified the presence of

a ‘nationally important’ Annex 1 Habitat: ‘Alkaline Fens (7230)’ at this location. No other Annex 1 habitats are recorded within the study area.

- All waterbodies crossed by the proposed development are shown in Table 10.6 of the EIAR (and illustrated in Figure 3 of the Appropriate Assessment Screening Report) which includes details of the relevant river waterbody Water Framework Directive (WFD) status for the 2016-2021 monitoring period, the risk rating where available (Environmental Protection Agency, 2023), and the number and locations of all interactions with the proposed development.
- Records of legally protected, rare and / or notable species recorded within 2km and 150m of the application site are listed in Table Nos. 10.7 and 10.8 respectively.
- Although the closest designated site for breeding hen harrier is the Slieve Bloom Special Protection Area c.49km to the west of the proposed development, the desk study returned 3 No. records of wintering hen harrier within 2km of the proposed development.
- The study area is hydrologically linked to two main river catchments (the River Tolka and the River Liffey).
- The proposal is not within any freshwater pearl mussel catchment.
- White-clawed crayfish have been recorded on the River Liffey from the upper catchment at Naas (south of the proposed development) to middle and lower catchments at Clane, and tributaries including the Rye Water.
- Records of invasive species within 2km of the site boundary are set out in Table 10.11.

9.7.9. *Results of the Site Visit:*

- The study area comprises a combination of natural, semi-natural and artificial habitats which is dominated by improved agricultural grassland bordered by hedgerows.
- No Annex 1 habitats have been recorded, although an incidental record of devils-bit scabious was found at one location on Harristown Common close to Dunstown substation.

- Table 10.12 (as supplemented by Section 10.4.2.1) summarises those habitats recorded across the study area (as illustrated in Figures 10.2A & 10.2B).
- The Ground Water Dependent Terrestrial Ecosystems (GWTDE) of '*Wet Grassland (GS4)*' and '*Wet Willow-Alder Woodland (WN6)'* were recorded at a number of locations. Table 10.3 references those instances of such habitats within 250m of the proposed development (as illustrated in Figure 11.5).
- Details of the receiving aquatic environment are set out in elsewhere in the EIAR (incl. Chapter 12: 'Hydrology').
- No records were returned for protected or notable plant or fungi species within 200m of the proposed development and none were recorded during the site survey.
- Wintering bird surveys recorded a total of No. 21 species across the study area, including 6 No. species listed as SCI for SPAs within 50km, 2 No. Annex I species, 4 No. Red listed bird species and 10 No. Amber list bird species.
- No observations of hen harrier were recorded during the winter roost vantage point surveys. Those incidences of other notable and protected species were recorded outside of the Zone of Influence / study area.
- A total of 54 No. species were recorded during the breeding bird surveys, including 2 No. Annex I species, 7 No. red-listed species, and 14 No. Amber-listed species (the results of these surveys are detailed in Table 10.17 of the EIAR).
- Ground level assessments identified a total of 74 No. trees and 6 No. groups of trees as Potential Roost Features (PRFs) for bats. No buildings within the survey area had features suitable for roosting bats.
- Static bat detection surveys were deployed at 12 No. locations representative of the 74 No. tree PRFs with bat activity recorded at all the locations with at least six species identified. Bat foraging activities were found to be relatively constant along the treelines surveyed, however, no bat roosts were recorded in any of the trees (a summary of bat species recorded flying outside trees but not emerging or entering trees is given in Table 10.19 of the EIAR).

- Suitable habitats for resting, commuting and foraging otter were recorded throughout the survey area, including wet drainage ditches, lowland rivers and broadleaved woodland:
    - A potential otter holt was recorded along the River Liffey at ITM E687929 N724445 (along the route of the proposed HDD where it crosses the River Liffey, WB35).
    - A single otter slide close to the bank of the River Liffey at ITM E687940, N724511.
- Habitat suitable for badger to excavate their setts was present within the survey area, including areas of scrub and broadleaved woodland. Hedgerows, treelines, grassland and broadleaved woodland all provide suitable foraging and commuting habitats for badger.

  Multiple signs of badger were recorded throughout the survey area, including prints, latrines, snuffle holes, a live sighting, four potential badger holes, three inactive outlier setts and two active main setts (Table 10.20).
- Other protected mammals such as the Irish stoat, Irish hare and hedgehog are likely to be present within the study area within areas of suitable habitat (i.e. agricultural fields bordered by hedgerows, treelines, etc.). A dead red squirrel was also recorded within the survey area.
- Although no direct observations of amphibians were recorded, habitats for common frog and smooth newt were identified and are likely to be widespread across the study area.
- Although no direct observations of reptiles were recorded, lizards are likely to be widespread across the study area where suitable habitat exists. This includes breeding habitat such as scrub, hedgerows, dry meadows and grassy verges. Stonewalls, which offer suitable basking and hibernation habitat, were also identified within the study area.
- At or near to waterbody crossing points, or at smaller watercourses, a visual assessment was carried out over a 200m stretch of the waterbody's potential to support fish of conservation interest (Atlantic salmon, European eel and lampreys).

Of the 46 No. waterbodies assessed, 29 No. were assessed to have little supporting habitat and / or showed signs of pollution while 17 No. were considered to have the potential to support protected and notable fish species due to the presence of supporting habitat (variety in sediment sizes and refugia, silt beds for juvenile lamprey and unpolluted water).

Due to the high quality of supporting habitat and absence of pollution, 5 No. of the waterbodies were assessed as having high potential to support protected and notable species. These will be crossed by HDD and therefore did not require eDNA sampling.

Supporting habitat for lamprey, in the form of silt beds, was present in a tributary of the River Liffey (WB32) and a tributary of the Tolka (WB01) (although the proposed development does not cross this latter waterbody).

The waterbody assessments are presented in Appendix 10.4 with the locations of the sampling shown in Figure 10.8.

Positive results (from eDNA surveys) for fish are as follows:

- Atlantic salmon was present at Rye Water_020_Padinstown (WB12) and Jenkinstown Stream_010 (WB08); and
- European eel was present at Jenkinstown Stream_010 (WB08) and two tributaries of the River Liffey (WB 32 and WB46).

- The results of the eDNA sampling confirmed the presences of white-clawed crayfish in the following two waterbodies:
  - WB46 (tributary of the River Liffey); and
  - WB32 (tributary of the River Liffey) which lies 1.7 km northwest of Castlefen.
- The nearest SAC designated for the Marsh fritillary butterfly is Ballynafagh Lake SAC, c. 1.6km west of the site boundary (at its nearest location) and well beyond the expected dispersal range of the species. Marsh fritillary was not recorded during the site visits, although its main food source (devil's bit scabious) was recorded at one location on Harristown Common, the location

of which is beyond the footprint of the proposed development at 462m distance with an intervening sports pitch providing further physical separation.

- The following non-native invasive plant species as listed in Part (1) of the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011, as amended, were recorded in the 2022 survey (locations are shown in Figure 10.9):
    - Himalayan balsam between chainage 37000 and 37250. Two other stands noted at chainage 39000 c. 50 m west of the proposed development. There could be more in this vicinity, unrecorded; and
    - Giant rhubarb – ornamental planting by a pond c. 120m from cable route.
- Other non-third schedule species recorded include Montbretia, Butterfly bush, Cotoneaster, and Sycamore, however, these populations are not known to pose risk of impact to protected species or those of conservation concern.

9.7.10. The key ecological receptors identified in the EIAR are subsequently assigned a value in compliance with the methodology described in 'Guidelines for Ecological Impact Assessment in the UK and Ireland – Terrestrial, Freshwater, Coastal and Marine '(CIEEM 2019) and 'Guidelines for Assessment of Ecological Impacts of National Roads Schemes' (NRA 2009). These are shown in Table 10.21.

9.7.11. (Receptors with a value of 'Less than Local importance (lower value)' are not considered 'Important Ecological Receptors' (IERs) and are not included in the EIAR. This does not mean that they have no ecological value but that they are widespread, unthreatened and resilient to impacts from the proposed development and will remain viable and sustainable during construction and operation).

9.7.12. All designated areas for nature conservation within the Zone of Influence of the proposed development are considered to be IERs.

9.7.13. **Potential Effects**

Section 10.5 of the EIAR details the potential effects on biodiversity considerations attributable to the proposed development. Likely significant effects, as identified in the EIAR, are summarised in Table BD1 below:

Table BD1: Biodiversity	
Project Phase	**Potential Effects**
Do-Nothing	Rural and urban areas will continue to evolve. The existing rural land uses surrounding are likely to remain relatively unchanged; however, existing zoned land will be developed. Current biodiversity trends are likely to continue in for pasture and arable agricultural lands. Any effects on biodiversity are likely to be moderated by the environmental and biodiversity policies of the existing and future County Development Plans, Biodiversity Plans, and the overarching pollution control objectives of River Basin Management Plans. *Designated Sites for Nature Conservation*: - Designated sites within the ZoI of the proposed project would likely remain as described in the baseline section of the EIAR into the medium-term future. The current pressures and threats affecting these sites would remain in the absence of the Project. *Habitats and Flora*: - Habitats within the ZoI of the proposed Project would likely remain as described in the baseline section of this the EIAR into the medium-term future. The current pressures and threats affecting these habitats would remain in the absence of the Project. *Fauna*: - Fauna within the ZoI of the proposed Project would likely remain as described in the baseline section of this report into the medium-term future. The current pressures and threats affecting these species would remain in the absence of the Project.
Construction	A summary of potential impacts during the construction phase is provided in Table 10.24 of the EIAR. Likely significant effects are as follows: *Designated Sites:* - Rye Water Valley / Carton SAC: Habitat degradation. - Water Bodies: Habitat degradation (hydrology – pollution), disturbance / displacement. - Royal Canal pNHA: Habitat degradation (hydrology – pollution), disturbance / displacement. - Grand Canal pNHA: Unstated (likely to comprise habitat degradation (hydrology – pollution), disturbance / displacement). *Habitats*:

	- Hedgerows (WL1) species-rich: Habitat loss. - Hedgerows (WL1) species-poor: Habitat loss. - Broadleaved woodland (WD1): Habitat loss. - Scrub (WS1): Habitat loss. - Drainage ditches (FW4): Habitat loss. - Dry meadows and grassy verges (GS2): Habitat loss. - Wet grassland (GS4): Habitat loss and degradation (hydrology). - Reed and large sedge swamps (FS1): Habitat loss. - Wet willow-alder-ash woodland (WN6): Habitat degradation (hydrology). - Dry calcareous grassland (GS1): Habitat loss. *Protected, Notable and Invasive Species and Species Groups:* - All other Red, Amber or Green listed bird species (non-SCI breeding populations): Habitat degradation (pollution). - Bats: Habitat loss, fragmentation and disturbance. - Otter: Mortality, disturbance and habitat degradation (pollution). - Badger: Mortality, habitat loss and disturbance. - Other protected mammal species protected under the Wildlife Acts: Mortality, habitat loss and fragmentation and disturbance. - Smooth newt: Habitat loss and fragmentation, mortality and disturbance. - Common frog: Habitat loss and fragmentation, mortality and disturbance. - Common lizard: Habitat loss and fragmentation, mortality and disturbance. - Atlantic salmon: Habitat loss, degradation (pollution), disturbance and mortality. - Lamprey spp.: Habitat loss, degradation (pollution), disturbance and mortality. - European eel: Habitat loss, degradation (pollution), disturbance and mortality. - White-clawed crayfish: Habitat loss, degradation (pollution), disturbance and mortality. - Other fish species (including trout): Habitat loss, degradation (pollution), disturbance and mortality. - Non-native invasive plant species: Habitat loss and degradation.

Operation	The negative effects of habitat loss resulting from the permanent access roads and joint bays etc. arise during the construction stage and have been assessed accordingly. In the event any unexpected and / or emergency maintenance of the cable requires excavation works, the potential arises for negative effects at a local scale from mortality and disturbance and loss or fragmentation of habitat for Important Ecological Features.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. 'other projects / developments' that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential cumulative impacts. A summary of the 21 No. '*other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR identifies the following potential cumulative effects (pre-mitigation) on biodiversity considerations should the construction or operational phase overlap with that of certain other named projects: <u>PCI0001 – CP0466 North South Interconnector EirGrid project:</u> - Negative, Significant, and Short-Term impact on calcareous grassland due to the construction of both projects. - Negative, Moderate, and Short-Term impact on calcareous grassland due to the operational maintenance requirements for both projects <u>CP1021 East Meath – North Dublin EirGrid project:</u> - Negative, Significant and Short-Term impact on Dunboyne_010, if construction phases were to overlap, due to the requirement of both projects to cross this water body. - Negative, Significant and Long-Term impact due to the loss of treelines / grassland between the entirety of both projects.

	- Negative, Significant and Long-Term impact on bats due to the loss of nesting and foraging habitat due to the removal of treelines / grassland between the entirety of both projects. - Negative, Significant and Medium-Term impact on breeding birds due to impacts to trees and hedgerows during the construction phases at a local level for construction phases. <u>211175 - EirGrid Dunnstown Substation Extension project, 310841 – Strategic Power Projects Limited project:</u> - Negative, Not Significant and Short-Term on water quality and ecological features within the water body in the Liffey_SC_050 WFD sub-catchment, due to the potential for increases in sediment laden runoff, removal of bed material and changes to the bed and bank as a result of open cut trenching. <u>314232 – Dart+ West project:</u> - Negative, Significant and Short-Term cumulative impact on of Rye Water Valley/Carton Special Area of Conservation (SAC) due to the potential for accidental pollution from both projects <u>191288 – White Tide project, 191296 - Alexander Georgakis:</u> - Negative, Significant and Long-Term cumulative impact on biodiversity from water pollution and from the removal of semi-natural vegetation on local bird and bat populations, due to both construction phases. <u>191288 – White Tide project:</u> - Negative, Significant and Long-Term cumulative impact from the loss of the semi-natural vegetation until the replacement planting of both projects has matured. <u>191296 - Alexander Georgakis:</u> - Negative, Moderate and Long-Term cumulative impact from the loss of the semi-natural vegetation until the replacement planting of both projects has matured. <u>21547 - Quattuor Developments project:</u>

	- Negative, Significant and Medium-Term cumulative impact from water pollution and from the removal of semi-natural vegetation on local bird and bat populations, due to both construction phases. <u>22221502 / 23942 - Westar Homes project:</u> - Negative, Significant and Long-Term cumulative impact upon the Grand Canal pNHA from the potential for water pollution from both projects. <u>Jigginstown Data Centre project:</u> - Negative, Significant and Medium-Term cumulative impact upon the Grand Canal pNHA from the potential for water pollution from both projects. <u>Water Supply Project:</u> - Negative, Significant and Medium-Term cumulative impact from the potential for cumulative effects on water quality between both projects for water bodies which are hydrologically connected to Rye Water Valley/Carton SAC.

9.7.14. **Mitigation**

Mitigation measures are outlined in Section 10.6 of the EIAR. At the outset, it has been submitted that an Ecological Clerk of Works (ECoW) will be appointed to carry out pre-construction surveys to ensure that the baseline is current and, where required, the implementation of appropriate mitigation measures as needed. These pre-construction confirmatory surveys will relate to selected ecological features whose distribution is dynamic over time (e.g. bats, otters, and badgers etc.) and will also address those small areas of land that could not be surveyed during the initial baseline data collection. The results of the pre-construction surveys will inform the refinement of mitigation and monitoring measures (if required) in the contractor's methodology and all results will be incorporated into constraint mapping.

9.7.15. ***Construction Phase:***

During the construction phase, it is proposed to implement a number of site-wide mitigation measures to avoid the impacts associated with pollution of watercourses

and impacts to small mammal species, amphibians and breeding bird species. In addition, specific mitigation measures are proposed for various elements of the development.

9.7.16. ***Site-Wide Mitigation Measures:***

The broader site mitigation will include the following:

- The presence of the ECoW during any works of a sensitive nature due to the number of sensitive ecological receptors and the works taking place within watercourses connected to European sites. Where sensitive habitats or species could be impacted, the ECoW will oversee the implementation of all mitigation measures. Examples include the installation of silt-fencing as part of any in-stream works where a watercourse is hydrologically connected to a European site.
- The ECoW to give a toolbox talk to all site personnel to highlight any environmental sensitivities and the boundaries of sensitive habitats. This will include the implementation of adaptive mitigation measures such as those arising from pre-construction surveys that may have identified unexpected receptors.

9.7.17. In addition, the implementation of the Construction and Environmental Management Plan will provide for the following pollution control measures:

- Surface water runoff at construction sites to be managed to prevent silt-laden surface water flowing into surface water receptors:
    - No deleterious discharges to be released to nearby water bodies during construction. If discharge to a watercourse is necessary, the water will pass through a suitable drainage system such as a swale and/or silt buster prior to discharge. The levels of suspended solids in any discharge will accord with Inland Fisheries Ireland's '*Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters*' and flows will be controlled to levels appropriate to the receiving water.
    - Silt fences to be erected along the boundary of water bodies to prevent any silt laden runoff from impermeable surfaces, temporary or

permanent, as well as spoil heaps within the construction working width (please refer to the additional details provided in Section 10.6.4 of the EIAR).

- Stripped soil will be stockpiled more than 10m away from the surface interceptor drain. Stockpiles will be in a dry zone that is not subject to flooding (i.e. outside 1:100 flood extent (1% Annual Exceedance Probability)). The measures to be put in place will include:
    - The siting of temporary stockpiles away from drains and watercourses. Stockpiles will not be located within 10m of a watercourse;
    - For watercourse crossings, stockpiles will not be located anywhere within the crossing working area;
    - Stockpiles will be managed to prevent siltation of watercourse systems through run-off during rainstorms.
- The following measures will be implemented for the storage of materials:
    - All oil and diesel storage facilities will be at least 30 m from any watercourse, including surface water drains, and outside the 1:100 flood extent (1% Annual Exceedance Probability);
    - Spill kits and drip trays will be provided for all equipment and at locations where any liquids are stored and dispensed;
    - Storage areas for solid materials, including waste soils, will be designed and managed to prevent deterioration of the materials and their escape (via surface run-off or wind blow);
    - Storage areas will be kept secure to prevent acts of vandalism that could result in leaks or spills; and
    - All containers of any size will be correctly labelled, indicating their contents and any hazard warning signs.
- The following measures will be implemented across the site to prevent spills:
    - Fuel tanks, drums and mobile bowsers (and any other equipment that contains oil and other fuels) will have a secondary containment, for example double-skinned tanks;

- All tanks, drums and mobile bowsers will be located in a sealed impervious bund with sufficient capacity to contain at least 25% of the total volume of the containers or 110% of the largest container, whichever is the greatest;
- Storage areas will be covered, wherever possible, to prevent rainwater filling the bunded areas (long-term storage areas will be covered. Storage areas used for a short period of time e.g. a few hours and where no rain is predicted, will not be covered);
- Fuel fill pipes will not extend beyond the bund wall and will have a lockable cap secured with a chain;
- Fuel to be delivered through a pipe permanently attached to a tank or bowser;
- Suitable precautions will be taken to prevent spillages from equipment containing small quantities of hazardous substances (for example, chainsaws and jerry cans);
- For deliveries and dispensing activities, site-specific procedures will be out in place for bulk deliveries, and delivery points and vehicle routes will be clearly marked.
- Emergency procedures will be displayed, and suitably sized spill kits will be available at all delivery points, and staff will be trained in these procedures and the use of spill kits.

- The following measures will be implemented to reduce the risk of fuel and oil leaks from vehicles and plant:
    - All vehicles and plant to be in good working order and subject to regular inspection;
    - Sufficient spill kits to be carried on all vehicles;
    - Vehicles and plant to be regularly maintained to ensure that they are working at optimum efficiency with prompt repair when not in good working order;
    - Vehicles and plant will not park near or over drains; and

- Refuelling of vehicles and plant to be carried out on hard standing, using drip trays to ensure no fuel can contaminate the ground outside of the bunded areas.

- The following measures will be implemented to reduce risks associated with concrete pouring:
    - When working in or near the surface water and the use of introduced materials (e.g. oil) cannot be avoided, alternative materials such as biodegradable oils will be used;
    - Placing of concrete in or near watercourses will only be carried out under the supervision of the ECoW;
    - No hosing of concrete, cement, grout or similar material spills into surface water drains. Any spills shall be contained immediately, and run-off prevented from entering the watercourse;
    - Concrete waste and wash-down water to be contained and managed on-site to prevent pollution of all surface watercourses; and
    - Washout from concrete lorries will not be permitted on-site.

9.7.18. The site-wide mitigation also includes measures as regards certain flora and fauna which can be summarised as follows:

- <u>Breeding Birds:</u>

  Hedgerows, trees and scrub will not be removed during the bird breeding season.

  Where this seasonal restriction cannot be adhered to, habitats will be inspected by a suitably qualified ecologist for the presence of breeding birds prior to clearance. The ecologist will demarcate a suitable buffer around an active nest and clearance within this area will be postponed until the chicks have fledged. Bird deterrents will be tied to habitat confirmed without nests and the habitat will be cleared within three days of the inspection; otherwise, repeat inspections will be carried out to confirm the continued absence of nesting birds. If vegetation is to be cleared in the breeding season (under supervision of an ecologist), it will be chipped, removed or covered on the same day to prevent birds from nesting.

Planting of woodland, hedgerow and grassland habitats (once established) as detailed in the landscape drawings will provide compensatory habitat for the breeding bird species recorded in the study area.

- Bats:

  All trees to be removed will be subject to pre-construction checks or soft felling.

  Soft felling should only be undertaken between midway through August – early November when juvenile bats are capable of flight. In the unlikely event that any roosts are confirmed, the tree(s) will be felled under a derogation licence. The following will be provided such as:

  - An alternative roost (bat box) in a suitable, undisturbed location, away from the construction works.
  - The loss of trees with high potential for roosting bats will be mitigated for on a 3-to-1 ratio with bat boxes, and moderate potential trees will be mitigated on a 2-to-1 ratio with bat boxes.
  - A range of suitable models to be used, suited to the species recorded within the study area, and for different seasons.
  - The boxes will be erected in suitable locations.
  - Temporary lighting will be controlled and directed in order to mitigate any potential impacts to bats. Control measures will include cut-off cowls, suitable colours of lights are used, and ensuring lights are orientated in suitable directions.

- Otter:

  - Excavations will be covered at night to prevent otter from falling in or becoming trapped;
  - Should any otter be observed within the site boundary or should any evidence of otter activity be found, works must cease immediately and the ECoW contacted for advice;
  - Should a non-breeding otter holt or rest site be unexpectedly identified, a buffer zone of 30m will be implemented around the feature. Where a

resting place is confirmed to be a natal site this would increase to 150m; and

- Adherence to the NRA's Guidelines for the Treatment of Otters (NRA 2008b).

- Badger:
    - Ground excavations will be covered at night to prevent badger from falling in or becoming trapped;
    - Any works within 30m of an active sett will be supervised on-site and full-time by an ECoW (extended to 50m during the breeding season for a main sett where there is breeding activity);
    - Breeding setts will not be interfered with or disturbed during the badger breeding season (December to June inclusive);
    - Only the use of hand tools will be permitted within 20m of an active sett;
    - No heavy machinery will be used within 30m of a sett;
    - During the breeding season, no construction works will be undertaken within 50m of active setts nor blasting (if required) within 150m of active setts. Should this not be possible, an experienced ecologist will be contacted for advice on how best to proceed; the ecologist will be able to advise on any mitigation options that may be available relative to the predicted scale and duration of impact.
    - Night-time working will be restricted as far as possible within 100m of a sett;
    - The use of noisy plant and machinery with 30m badger setts will cease before sunset; and
    - Any spoil heaps will be sited at a minimum distance of 30m from setts.
- Squirrels:

    If pre-construction confirmatory surveys identify potential dreys at risk from felling, vantage point surveys will be conducted to identify if the squirrel is grey (invasive) or red (protected). Where visualisations are inconclusive, hair

tube surveys may be required following the method in NRA (2009). In the event that confirmed or suspected red squirrel dreys require felling, felling will only be carried out from October to January, in consultation with the NPWS, which may require a licence, subject to survey findings.

- Other Protected Mammals:
    - Any excavations will be covered at night to prevent small mammals from falling in and / or becoming trapped;
    - Working at night will be prohibited where specific tasks such as vegetation removal and clearance are to be carried out and will be informed by the ECoW;
    - Any lights will be turned off after working hours, unless required for safety or security reasons;
    - Noise mitigation measures will be implemented; and
    - With the exception of permanent areas of hardstanding and cable easement, the site will be re-vegetated, post-construction.
- Amphibians and Reptiles:
    - Vegetation will be cleared in two stages, during the reptile and amphibian active season, following the completion of the toolbox talk specific to amphibians and reptiles:
        - A hand-search by a licensed ECoW for any animals present within vegetation to be cleared, followed by a first cut of vegetation down to 210mm above ground-level using hand tools;
        - A second hand-search of vegetation by an ECoW for any animals present, followed by the second cut of vegetation to ground-level (or as close as practicable).
    - If any reptiles are found during pre-construction surveys or during works, they will be captured and translocated by a suitably qualified and experienced ecologist under licence to a previously identified receptor site.

- Where practicable in the context of construction, water levels will be maintained in any watercourses potentially used by amphibians; and
- Habitat reinstatement will re-create, except in areas of permanent hardstanding, the former habitats within the site boundary.

- Invasive Plant Species:
  - All staff will be informed of the presence of Himalayan balsam and any other invasive species through toolbox talks;
  - Exclusion zones will be established where necessary to prevent the spread of invasive species;
  - No machinery will be allowed within exclusion zones other than where necessary to undertake treatment measures;
  - Any plant material and soil-containing plant material must be disposed of in accordance with the NRA (2010) guidelines; and
  - Care will be taken near watercourses to ensure that material that contains flower heads, seeds or cuttings of any invasive species will be disposed of correctly and not enter watercourses

9.7.19. Specific mitigation measures are also proposed as regards certain Important Ecological Receptors as follows:

- European Designated Sites:

  The NIS has found that, in the absence of mitigation, likely significant effects on the Rye Water Valley/Carton SAC could not be excluded, because this SAC is hydrologically connected to the application site by several waterbodies. Mitigation measures to protect the Rye Water Valley/Carton SAC from water pollution are described in the NIS and in the site-wide mitigation measures above.

- Nationally Designated Sites:

  In addition to the wider waterbody mitigation, the following measures relating to HDD are to be put in place where the proposed development crosses the Grand Canal pNHA and the Royal Canal pNHA:

- Drilled cuttings will be flushed back by the drill fluid flowing via nozzles in the drill bit, to the surface, where they will be separated from the fluid fraction for disposal. A comprehensive closed-loop drilling fluid mixing and circulation system with recycling capability will be used to minimise the volume of fluids required on site;
- The shaft and borehole will be kept at least 50m away from any watercourse where possible. However, given that the shaft will be kept as short as possible to reduce the risk of the drilling machine becoming stuck, it may not be possible to keep 50m from a watercourse. In this case, a bunded area will be created around the temporary working space to prevent slurry washing into the waterbody in the case of accidental release;
- Use will be constantly monitored by the contractor through materials balance calculations, pressure monitoring in the lines and above ground visual assessment of the works. The pressure will be lowered, if necessary, to prevent a breakout. Bentonite pumping will stop immediately if any sudden drop in pressure is detected which could indicate a bentonite breakout;
- Biodegradable drilling mud formulation and management for the conditions and best practice drilling practices will be adhered to by the contractor at all times; and
- The contractor will further develop the emergency action plan, which is included in the CEMP which will include containment, control and clean-up measures in the event of drilling fluid release into the environment. Containment measures include installing interception devices (e.g., silt fence, staked straw bales, sediment curtains, collection sumps)

- <u>Otter</u>:
    - Due to an apparent active otter holt within 150m of the proposed development, subject to further confirmatory surveys, a derogation licence will be required to undertake the works. To confirm the holt status, it will be monitored under licence for a minimum of five days

using remote cameras. Camera trap surveys will be undertaken prior to licence application.

If the holt is found to be inactive, works can proceed under the supervision of an ECoW. Should the holt be determined to be active, a buffer zone will be established as agreed with the ECoW – up to 150m for a natal site. The NRA's 'Guidelines for the Treatment of Otters' will be followed at all times.

- Badger:
    - Mitigation measures will follow the recommendations set out in the NRA's 'Guidelines for the Treatment of Badgers during the Construction of National Road Schemes'.
    - To determine whether a sett is active or inactive, prior to commencement of construction, camera traps will be set up to monitor the entrance to the holes for a minimum of five days. If, after five days, there is no evidence that badgers are using the sett, it is presumed inactive and no further actions are required. However, this would only apply if the camera trap monitoring was carried out directly prior to the start of works, meaning there was no change to the baseline. The use of the sett may change over time, so if there is a delay of more than 12 months prior to the commencement of the works from the date of the final camera monitoring, then a further badger survey will be undertaken to determine the status of the hole.
    - No heavy machinery will be used within 30m of active badger setts; lighter machinery (generally wheeled vehicles) will not be used within 20m of a sett entrance; light work, such as digging by hand or scrub clearance, will not take place within 10m of sett entrances. During the breeding season (December to June inclusive), none of the above works will be undertaken within 50m of active setts nor blasting or pile driving within 150m of active setts.
    - Affected badger setts should be marked and the extent of bounds prohibited for vehicles clearly marked by fencing and signage. When there is the need of proceeding with works close to active setts during

the breeding season, mitigation measures, such as sett screening and restricted working hours will be adopted, prior expert consultation. To determine whether a sett is active or inactive, camera traps will be set to monitor the entrance to the holes for a minimum of five days. If, after five days, there will be no evidence that badgers are using the sett, it will be considered inactive, and no further actions will be required. However, this will only apply if the monitoring was carried out directly prior to the start of works, meaning there was no change to the baseline. The use of the sett may change over time, so if delays occur (more than 12 months prior to the commencement of the works from the date of the final camera monitoring), further badger surveys will be undertaken to determine the status of the hole. Disused and inactive setts entrances can be blocked to prevent the reoccupation, and sett can be destroyed using a mechanical digger after 5 days of monitoring, under the supervision of the licensee. Construction activities within the vicinity of affected setts can begin after setts have been evacuated and destroyed under licence from the public authority. Alternatively, when affected setts do not require destruction, construction works will start after recommended alternative mitigation measures have been addressed (NRA 2006b).

- Works close to badger setts will only be conducted under the supervision of a qualified expert under licence from the public authority.

- <u>Fish and aquatic invertebrates:</u>

  - In-stream works will not be carried out in watercourses frequented by salmon or trout during the Annual Close Season. Translocation (fish rescue) and in-stream works will be undertaken outside of the spawning season for salmonids (salmon and trout) and lamprey (river and brook), generally taken to be summer to early autumn, which would also protect white-clawed crayfish. The timing of works will be considered on a site-specific basis and in agreement with the IFI;

- Operation of machinery in-stream will be kept to an absolute minimum. All construction machinery operating in-stream will be mechanically sound and cleaned & checked prior to commencement of works;
- The design of temporary settlement ponds (including outfalls) and their construction method statements will be agreed with IFI prior to construction;
- Disturbance of the watercourse bed and bank will be the absolute minimum required for the installation of outfalls/culverts;
- Any dewatering flows will be directed to the construction drainage system and to the settlement pond (or other) treatment system;
- Sediment mats / silt traps or similar will be located immediately downstream of works within and adjacent to the watercourses. These will be inspected daily, maintained and cleaned regularly. Diversion of water will only take place during the period March to September (IFI, 2016) or as agreed with the IFI;
- Small check dams will be constructed in the cut-off watercourse to trap any sediment, and a sediment trap will be provided immediately downstream of the diversion to the existing watercourse; and
- Where in-stream bed material is to be removed, coarse aggregates, if present, will be stockpiled at least 10m away from the watercourse for replacement following reinstatement of a watercourse channel.

Watercourse banks affected during construction in/near a watercourse will be reinstated back to pre-development conditions.

Where open trenching is proposed, site restoration works will be carried out following completion of the crossing in agreement with IFI. Open cut trenching will not be carried out during extreme rainfall or high flow events. Unless otherwise agreed with IFI (for fish) and/or the NPWS (for white-clawed crayfish), any element of the works requiring in-stream works will be restricted to the fisheries open season. Where white-clawed crayfish were confirmed as present (WB46 and WB32), works will be carried out under licence.

Additional measures to protect fish species and white-clawed crayfish are as follows:

- Where in-stream trenching is to be carried out, the area will be dewatered to provide a dry working area;
- Netting, sandbags and/or dumpy-bags filled with rock will be installed upstream to prevent fish travelling downstream into the working area. An impermeable barrier will be tailored to the watercourse in question, where technically feasible, fluming will be preferred to over pumping techniques to provide the dry working area;
- Fish will be removed from the working area through electrofishing and moved upstream of the dammed area;
- Hand searches, under licence, will be conducted at WB46 and WB32 where crayfish were confirmed to be present, and any crayfish found will be removed and moved upstream of the dammed area;
- Water will then be over-pumped continually to ensure a dry working area. This will be pumped through a silt buster to avoid sediment from becoming suspended within the watercourse; and
- Once construction is completed, the watercourse will be re-wetted under the direction of the ECoW. Water will be released slowly, and silt mats, sediment traps and haybales will be used to avoid a sudden influx of sediment to the system. A silt buster will be used where required.

- <u>Invasive Species:</u>
  - Recorded instances of Himalayan balsam along the route of the proposed development will be fenced off and toolbox talks given to raise awareness. Where this is not possible, biosecurity measures will be carried out as presented in the site-wide mitigation section.

9.7.20. In addition to the aforementioned mitigation, the following reinstatement measures will be implemented:

- <u>General Requirements (All Hedgerows):</u>

- All planting will be native (only), taking account of the vegetation that has been removed and typical species of the Kildare/Meath landscape.
- A post-consent baseline survey of all hedges to be removed will be carried out to inform reinstatement.
- Unless otherwise agreed, hedgerows and treelines will be reinstated to a species-rich condition (i.e. five woody species per 30m), comprising only native species. All other sites will be returned as close as possible to their pre-existing condition, using the same woody species removed, under the supervision and direction of the ECoW.
- Hedging / hedgerow plants will be planted as a staggered double row, six plants per metre with 330mm between rows. Suitable individual protection will be provided. Group protection of new planting may be provided by suitable fencing. Mulch mats or similar weed suppression materials (restricted to a biodegradable specification) will be used to promote successful establishment.
- Orders will use by the scientific name to ensure native plants are delivered and not a cultivated variety.
- Orders will be placed as soon as possible (up to a year in advance) to ensure the required species and stock specification can be secured.
- Consideration will be given to the procurement of planting so that there are suitable lead-in times to ensure that plants are of the right age/height required for when they are planted.
- The contractor will manage the establishment phase of planting (1–2 years) in accordance with applicable guidance (Teagasc, 2020). Thereafter, the developer (ESB) will manage plantings from years 3-5 in agreement with the landowner.

- <u>Specific Requirements (Hedgerows and Trees within the Cable Easement):</u>

  Although the latest specification (EirGrid 2021) requires any easement areas to be kept clear of trees and other vegetation that may damage the cable, a Draft Over Cable Planting Strategy is in advanced development in consultation with ESB for which the Design Risk Assessment DRA was

ongoing at the time of writing. Notwithstanding, it remains possible that the DRA may conclude that over cable planting cannot be delivered while guaranteeing cable performance and security. There are also risks that the strictly defined shrub species list is not compatible with landowner farm boundary requirements and/or agricultural farm payments. Therefore, by applying a precautionary principle, offsite compensatory planting has been assumed for all permanent losses within the easement.

- Specific Requirements (Semi-Natural Grasslands):
  - The ECoW will develop site-specific reinstatement plans for all semi-natural habitats. In accordance with the All-Ireland Pollinator Plan, commercial seed mixes will not be sown with the objective of restoring biodiversity.
  - The site-specific reinstatement plans for semi-natural habitats will adopt the following approach, subject to consultation with the NPWS:
    - Where it is deemed appropriate to allow habitats to re-vegetate naturally (e.g. roadside verges, where similar habitat is contiguous either side of the construction area), there will be no active seeding of reinstated topsoil;
    - In all other areas, the preferred approach to reinstatement shall be use of locally collected seed from similar habitats;
    - Use of commercial seed in semi-natural habitats will only be permitted where local seed is not available, or where local seed establishment has failed, and if both:
- General Requirements (Roadside Verges and Agricultural Areas):

  Measures for use of seed in grassland reinstatement are as follows:
  - Commercial seed mixes can be used on agricultural lands. All other areas will be left to naturally revegetate;
  - All seed mixes will be certified native by the Department of Agriculture, Food, and the Marine; and

- In agricultural areas, the rate of seeding, time and method of sowing, including the application of fertiliser, will be agreed with an experienced agronomist and will follow the guidance on reseeding (Teagasc 2020).

- Monitoring:
  - A five-year monitoring landscape aftercare regime will be implemented to ensure that the proposed mitigation measures remain effective, particularly in regard to reinstatement and compensation.
  - Sediment mats/silt traps or similar immediately downstream of works within and adjacent to the watercourses will be inspected daily, maintained and cleaned regularly. Diversion of water to and from a temporary diversion channel will only take place during the period March to September (IFI, 2016) or as agreed with the IFI.
- Reporting:
  - All reinstated or indirectly impacted semi-natural vegetation will be inspected at the completion of construction with written reports provided to the developer's ecologist (ESB) and EirGrid's Planning and Environmental Unit. At that time, the developer's ecologist (ESB) will determine what additional steps (if any) are required e.g. replacement tree planting, additional hedge mulch or protection from browsing animals, or sowing of locally harvested seed.

9.7.21. ***Operational Phase:***

- The off-site compensatory planting will be maintained throughout the operational phase by a third-party charity supplier.

No other mitigation is proposed during the operation phase as operational effects on IERs are expected to be minimal.

9.7.22. **Residual Effects**

With the implementation of the mitigation measures proposed, the following residual effects are anticipated:

- A ‘Short to Medium’ term ‘Significant’ residual effect at ‘Local-County’ scale from the loss of hedgerows and treelines (WD1, WL1 and WL2) until new species rich hedgerows and treelines are established.
- A ‘Permanent’ ‘Significant’ residual effect estimated at ‘County’ significance from the loss of mature trees as trees cannot be compensated with replacement planting due to the time taken for trees to reach maturation.
- A ‘Short to Medium’ term ‘Significant’ residual effect at ‘Local’ level from the loss of dry meadow and grassy verge (GS2) until new grassland and meadows can establish. There are no compensation options available for wet grasslands (GS4).

9.7.23. Although it will be possible to reduce the impacts to ‘local’ level for most of the IEFs, it is accepted that there will be a permanent significant residual negative ecological effect from the loss of individual mature trees despite the mitigation proposed. In response, it is proposed to offset this impact by way of appropriate off-site compensatory tree planting which will deliver 130% of the trees permanently lost (culminating in a net gain of 104 No. trees as per Table 10.26 of the EIAR).

9.7.24. In addition to the foregoing, an off-site hedgerow compensation strategy has been developed while a draft Over Cable Planting Strategy is being advanced in consultation with ESB (although given the uncertainties over this latter strategy it has been assumed that planting cannot be carried out over cables while maintaining technical and safety standards).

9.7.25. The compensatory planting will commence in advance of, or in parallel with, the construction phase. Candidate sites in Co. Meath and Dublin have been identified in consultation with a charity partner, who provides compensatory planting options on third-party lands (no such planting is to be carried out in semi-natural habitats of significant ecological value).

9.7.26. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

Having examined, analysed and evaluated Chapter 10 of the EIAR and all of the associated documentation and submissions on file in respect of biodiversity considerations, I am satisfied that the applicant’s understanding of the baseline environment, by way of desk and site surveys, is comprehensive and that the key

impacts in respect of likely effects on biodiversity as a consequence of the development have been identified.

9.7.27. Although Meath County Council has raised concerns as regards the extent of hedgerow and tree loss attributable to the proposed development (both individually and in combination with other projects) and the resulting potentially significant impacts on the local landscape and ecological corridors, having reviewed the details provided, it is my opinion that while the likely short-medium term significant residual effect at local-county scale from the loss of hedgerows and treelines (WL1, WL2 & WD1), and the permanent significant residual effect of county scale due to the loss of individual mature trees, are both regrettable, given the wider strategic importance of the infrastructure in question, the mitigation proposed by way of partial reinstatement, and the net gain in hedgerows, treelines and individual trees once cognisance is taken of the mitigation and off-site compensatory planting, the significant effects arising are within acceptable limits and thus a refusal of permission would not be warranted.

9.7.28. With respect to the submission by the Council as regards the need for an 'Invasive Species Eradication & Management Strategy' with monitoring post completion of the works, I am satisfied that these concerns are adequately addressed by the mitigation measures included in the EIAR, with particular reference to the implementation of the Construction and Environment Management Plan which includes for the preparation of a management plan for those Third Schedule invasive plant species which have the potential to be impacted by the works, along with adherence to best practice in line with the 'Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (NRA, 2010).

9.7.29. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, it is considered that the only significant direct and indirect effect on biodiversity considerations, after the application of mitigation measures, is:

- The likely short-medium term significant residual effect at local-county scale from the loss of hedgerows and treelines (WL1, WL2 & WD1); the permanent significant residual effect of county scale due to the loss of individual mature trees; and a 'Short to Medium' term 'Significant' residual effect at 'Local' level

from the loss of dry meadow and grassy verge (GS2) until new grassland and meadows can establish.

Given the strategic importance of the infrastructure in question, the mitigation proposed by way of partial reinstatement, and the net gain in hedgerows, treelines and individual trees once cognisance is taken of the mitigation and off-site compensatory planting, the foregoing significant effects arising are within acceptable limits.

9.8. Land & Soil (incl. geology & hydrogeology):

9.8.1. Issues Raised:

The submission from the Health Service Executive / Environmental Health Officer includes the following comments as regards groundwater (hydrogeological) concerns:

- All private wells along the route of the proposed development should be identified prior to the commencement of any works and specific control measures agreed to avoid any adverse impact on said water supplies during the construction phase.
- Given that the majority of the study area is underlain by limestone with the potential to contain karstic features, the excavation of any bedrock which exposes a karstic feature may create a risk of groundwater contamination (with an adverse impact on groundwater supplies).
- The Construction and Environmental Management Plan should contain detailed control and disposal measures in the event that contaminated material is encountered during excavation works.

9.8.2. Examination of the EIAR:

Context

Chapter 11 of the EIAR assesses the potential effects of the proposed development on soils, geology and hydrogeology. It also provides an assessment of compliance with Directive 2000/60/EC (hereinafter referred to as the Water Framework Directive or WFD) in terms of groundwater. It sets out the relevant legislative and policy framework (including the relevant considerations as regards determining the importance of geological & hydrogeological features, the sensitivity of receptors, and

the magnitude of any impacts arising), methodology, baseline conditions, potential effects, mitigation measures, and the residual effects following mitigation. The chapter specifically considers the likely significant effects during construction and operation of the proposed development with regard to:

- Land cover;
- Soils and geology; and,
- Hydrogeology.

9.8.3. The assessment methodology is set out in Section 11.2 of the EIAR. A study area of 250m from the edge of the application site boundary has been deemed sufficient to enable a description of baseline conditions and the proper assessment of soil and geological considerations (in the absence of any national guidance, this 250m study area is based on professional judgement and with reference to National House Building Council (NHBC) and Environmental Agency (EA) guidance; Guidance for the safe Development of Housing on Land Affected by Contamination).

9.8.4. With regard to hydrogeology, a study area extending 1km from the edge of the application site boundary was adopted on the basis that this will allow for the identification of receptors which could potentially be impacted outside of the location of the physical works. From a hydrogeological perspective, any such receptors could potentially be impacted by activities such as changes to groundwater levels caused by dewatering or the disturbance (in flow and/or quality) of groundwater. In turn, these may support receptors such as Groundwater Dependent Terrestrial Ecosystems or provide baseflow to watercourses. It is not expected that impacts to groundwater and its receptors will extend beyond the 1km study area while any impacts to land use, soils and geology will likely be more localised.

9.8.5. Data collection and collation on the receiving environment has included an examination of various desk-top resources. In this regard, it has been acknowledged that the Geological Survey of Ireland (GSI) database has known limitations as there is no requirement for private water supplies to be registered with it. Indeed, the GSI recommends against relying on its database as it is not comprehensive with many wells and springs not included while the record may also reference historical abstractions that are no longer active. Therefore, as a precaution, mitigation

measures have been proposed to ensure no significant effects on unknown private water supplies.

9.8.6. Ground investigations (GI) were also undertaken along the proposed cable route to inform the design and construction of the proposed development. These included boreholes, trial pits, slit trenches, geophysical surveys, soil and rock core sampling, environmental sampling, groundwater monitoring, in situ and laboratory testing and reporting of results. While there are acknowledged limitations as regards the GI data in terms of duration of groundwater monitoring, seasonal variation, and a spread of GI locations, these are considered typical of interim GI data and have been held not to affect the outcome of the assessment.

9.8.7. Information on potential groundwater dependent terrestrial ecosystems (GWDTE) was derived from habitat surveys undertaken up to 250m either side of the proposed development.

9.8.8. Notwithstanding the limitations of both the GSI database and interim GI data, these are not considered to be significant in the context of the submitted assessment.

9.8.9. The design of the proposed development has been screened against the various characteristics for groundwater bodies which can impact both the quantitative and qualitative status of the WFD groundwater body. In this regard, the proposed activities are considered to have a very low residual risk and therefore will comply with the WFD.

9.8.10. **Baseline**

Section 11.3 of the EIAR sets out a desk-based overview of the baseline conditions of all land use, geological and hydrogeological receptors within the study areas. It also includes any WFD groundwater bodies which lie within the 1km study area.

9.8.11. In terms of land cover and use, Table 11.6 provides a summary of the prevailing land use types across the study area (as derived from the CORINE 2018 land use dataset and shown geographically in Figure 11.6) from which it is apparent that the majority of the lands are in agricultural use as pasture with intermittent instances of non-irrigated arable land. Other less prevalent land use types include mixed forest, broad-leaved forest, peat bogs, road and railway infrastructure, and areas of discontinuous urban fabric associated with the towns / villages of Kilcock, Prosperous, Clane, Naas and Two Mile House. Notwithstanding, it is appropriate to

reiterate that an estimated 82% of the proposed UGC will be laid along public roads with the remaining 18% traversing (predominantly agricultural) privately held lands.

9.8.12. With regard to the underlying ground conditions, it has been established that the majority of the (250m) study area is underlain by soil types comprising fine loamy drift with limestone (reflecting the underlying limestone bedrock). Deposits described as river alluvium are to be found along the courses of rivers and floodplains, the most extensive of which are located along the River Liffey and the Royal Canal / Rye Water.

9.8.13. The underlying bedrock geology comprises multiple limestone formations, with some mudstone, sandstone and shale formations interbedded. The cable route crosses multiple bedrock types between the Woodland and Dunstown substation with some faulting present along the central section. Till derived from limestone is the most common quaternary deposit and is present across the centre and southern part of the proposed development. The northern extent of the cable route (i.e. north of Kilcock and the M4 motorway) is mainly underlain by till derived from Namurian sandstones and shales. Areas of mapped alluvium and gravels derived from limestone correlate with mapped watercourses and their floodplains. Table 11.7 provides a summary of the underlying soils, quaternary deposits and bedrock (while Figures 11.1 & 11.2 provide a graphical representation of the quaternary deposits and bedrock). Although there are no karst landforms shown on GSI mapping within the 250m study area, given the nature of the bedrock there is the potential for these features to be present sub-surface.

9.8.14. Areas of peat are not expected to directly underlie the proposed development, however, some examples are present within the study area between Chainages 27500 - 32000.

9.8.15. There are no operational quarries within the study area, although historic mapping has identified 6 No. gravel pits and 1 No. quarry. In this regard, it has been noted that there are known bedrock deposits and areas of sand & gravel of economic value underlying parts of the proposed development.

9.8.16. No operational landfills have been identified within the study area while there is one historical landfill located rurally in close proximity to the proposed development.

9.8.17. The majority of the proposed development site is in an area at low to medium radon risk.

9.8.18. Although potential ground gas sources have been identified within the study area, including natural soils with high organic content and point sources such as gravel pits & quarries etc. which may have been backfilled with decomposable material, it is considered that the potential for ground gas sources is low with no specific issues having been reported by the local authorities.

9.8.19. Potential sources of contamination are set out in Section 11.3.3.3 of the EIAR with the specific land uses identified potentially giving rise to localised impacts on soil and groundwater, as well as made ground associated with the construction of infrastructure and farming waste and chemicals. Due to the small scale and localised nature of these land uses, no significant effects are expected.

9.8.20. From a hydrogeological perspective, receptors include aquifers, abstractions (public and private), groundwater / surface water interactions (baseflow contributions, groundwater dependent terrestrial ecosystems etc.) and karst features.

9.8.21. Within the southern extent of the study area, the gravels derived from limestone have been classified as locally important gravel aquifers (Lg). The bedrock aquifers underlying the majority of the study area are classified as locally important bedrock aquifers which are moderately productive in local zones (Ll), although there is a small area of locally important bedrock aquifer (karstified) located between Chainages 35250 and 37000. The southerly extent of the study area is predominantly classified as a regionally important bedrock aquifer (Rk) associated with the Rickardstown Formation. A summary of the aquifer types and their importance is given in Table 11.8 of the EIAR while Figure 11.1 display the locations of the aquifers.

9.8.22. No group water schemes or public / group supply source protection zones have been identified within the study area. Although the GSI database has recorded the presence of 114 No. private water supplies with yields over $20m^2$/day, 8 No. of which potentially lie close to or directly underneath the proposed development (identified as 7 No. boreholes and 1 No. spring (St. Brides Well) which is not categorised as a private water abstraction), it must be reiterated that the GSI database has known limitations, particularly as there is no requirement for private supplies to be

registered. Although a review of the GSI database, public consultations, and landowner meetings has reduced the possibility of finding additional private supplies, the potential for unknown supplies is considered to be medium.

9.8.23. Groundwater vulnerability is generally high with localised areas of extreme vulnerability where rock is at or near the surface / is karstic. Areas of high groundwater vulnerability are more prevalent in the centre and southern part of the study area while there are two areas to the north where the proposed development directly crosses areas classified as either extremely vulnerable or rock is at or near the surface / is karstic.

9.8.24. Multiple watercourses are crossed by the proposed development that could have interactions with groundwater and these can be classed as groundwater receptors in terms of baseflow contributions. There will be no groundwater interactions at the Royal Canal and the Grand Canal which will both be crossed by way of HDD.

9.8.25. There are no Natura 2000 sites within the 250m study area, although the proposed UGC route will cross the Royal Canal and Grand Canal Proposed Natural Heritage Areas.

9.8.26. Potential groundwater dependent terrestrial ecosystems (GWDTE) within a 250m buffer have been identified. These include GS4 Wet Grassland, WN6 wet willow-alder-ash woodland, PF1 Rich Fen and Flush and FS1 Reed and large sedge swamp, and are summarised in Table 11.10 and displayed in Figure 11.5.

9.8.27. Details of the 8 No. WFD groundwater bodies within the 1km study area are summarised in Table 11.11. All the WFD groundwater bodies have a good overall status (as per Table 11.12) and their locations are shown in Figure 11.4

9.8.28. The Ground Investigation (GI) undertaken (the scope of which is set out in Section 11.3.6.1. of the EIAR) has established that the dominant topsoil comprises brown sandy clay with frequent rootlets and that there are instances of made ground / possible made ground (generally described as consisting of gravelly clay or gravel) in isolated locations. The superficial deposits and bedrock encountered have been noted as generally according with published geological information (although the presence of karstic features cannot be entirely ruled out).

9.8.29. From a hydrogeological perspective, the water strike data yielded from borehole investigations and trial pits etc. (ranging in depth from 1.5 m bgl to 5.2 m bgl)

indicates that groundwater is typically encountered within granular deposits beneath overlying clays (glacial till or alluvium) and may be confined in some locations by overlying less permeable strata. Only four groundwater strikes were recorded at depths of 2m below ground level or less while subsequent rises in eight of the boreholes resulted in final resting levels ranging from 1.0m bgl to 3.9m bgl. Given the lack of groundwater strikes and their depth, it is anticipated that the shallow excavations (<1.5 m bgl) proposed for the majority of the development will be unlikely to encounter groundwater (although there may be localised areas where shallower excavations could encounter groundwater).

9.8.30. Section 11.3.6.4 details the results of soil chemical testing and includes an assessment of the potential risks to human health and the water environment by reference to the Human Health Assessment Criteria (HHAC) and Controlled Waters Screening Criteria (CWSC) in accordance with EPA guidance. This analysis has generally confirmed that the risks from site soils to receptors are likely to be low and although isolated exceedances of the HHAC and CWSC were identified, these results were not considered representative of a viable risk that necessitated specific mitigation.

9.8.31. **Potential Effects**

Section 11.4 of the EIAR describes the potential effects on land & soil (incl. geology & hydrogeology) considerations during the construction and operational phases of the proposed development. Likely significant effects, as identified in the EIAR, are summarised in Table LS1 below.

Table LS1: Land & Soil	
Project Phase	**Potential Effects**
Do-Nothing	The current soils, geological and hydrogeological profiles within the study area are not expected to change.
Construction	Temporary / permanent loss / unavailability of some areas of land cover at off-road locations. The disruption of underground soils and subsoil layers during excavation could impact on the soils' physical, chemical and biological characteristics.

	Mobilisation of historical contamination could lead to small adverse effects locally. Any migration of contaminants potentially poses a localised pollution risk to groundwater and its receptors. No large-scale dewatering is expected and therefore the risks of subsidence are negligible. Any localised dewatering will be temporary during construction and is not expected to have any significant impacts. Changes to groundwater quality from the removal of vegetation and disturbance of ground could lead to increased suspended solid concentrations in the groundwater. Excavations could also create new pathways from the surface into shallow aquifer units impacting groundwater quality. These could lead to secondary impacts and affect the quality of groundwater discharging to surface waters, including water discharging to GWDTE, however, due to a filtering effect, the impacts will be negligible at aquifer scale and of 'Imperceptible' effect. Effects attributable to contamination via karstification pathways are likely to be 'Imperceptible' on the aquifer and 'Slight to Imperceptible' for surface watercourses (depending on sensitivity). Contamination to groundwater through leaks and spillages etc. A potential temporary 'Slight' effect on private water supplies where the buffer zone overlaps with the proposed development (such as through localised dewatering). Given the medium likelihood of the discovery of additional supplies, a potentially 'Large Adverse' magnitude of impact resulting in a 'Significant' effect requiring mitigation. Due to the risk of intercepting shallow and/or perched groundwater and the potential for small scale, localised dewatering, there is the potential for a localised impact on the groundwater quality supporting potential GWDTEs with a 'Moderate' significance of effect. Construction compounds could have a compaction effect on underlying shallow aquifer units with an impact on shallow groundwater levels, flows and quality locally, however, such an effect will be 'Imperceptible'.

	No substantial dewatering is expected to result from HDD activities, except potentially at launch and reception sites. The dewatering effects in such cases is expected to be negligible and the significance of effect 'Imperceptible'. Excavations for HDD potentially allows for contamination to underlying aquifers which could have small adverse impacts locally. These impacts are likely to be negligible given the size of the aquifer compared to the working footprint and, therefore, the significance of effect will be 'Imperceptible'. Trenchless crossings have the potential to release artesian pressures / water and have the potential to connect two aquifers that are currently not connected which could create a new contaminant pathway and lead to cross contamination. Such effects are unlikely but could have small adverse impacts locally and negligible impacts at an aquifer scale. The significance of effect would be 'Imperceptible'. Predicted impacts to groundwater receptors are summarised in Table 11.14 of the EIAR with the following of note: - The potentially large adverse impact on any unknown private water supply could result in a '*Significant'* effect. - Given the risk of intercepting shallow and / or perched groundwater and the potential for small-scale localised dewatering (with a localised impact on groundwater quality), there may be a short-term '*Moderate'* effect on certain identified Groundwater Dependent Terrestrial Ecosystems. Predicted impacts for WFD groundwater bodies are summarised in Table 11.15 of the EIAR. No significant impacts are anticipated.
Operation	Permanent loss / unavailability of some areas of land cover at off-road locations giving rise to negligible to small adverse impacts on land use. No long-term significant changes to geology and soils are predicted. No discharge to ground is expected from the operational phase. There may be some areas where small changes to flows are possible due to the presence of sub-surface structures, however, any impacts will be very localised and negligible at an aquifer scale. The significance of effect will be 'Imperceptible'.

	Localised compaction could impact shallow groundwater levels and flows. However, at an aquifer scale these impacts are likely to be negligible to small adverse. Accidental leaks etc. during maintenance works could impact groundwater quality resulting in small adverse impacts locally to quaternary deposits with an 'Imperceptible' significance of effect. The increase in impermeable areas at joint bays and permanent access tracks could alter recharge mechanisms locally but the effects would be 'Imperceptible'. The backfilled trench has the potential to act as a preferential flow pathway disturbing shallow groundwater flow patterns which could result in the draining of some areas and the localised ponding / flooding of others. This could become significant at local level if sensitive receptors are present in the vicinity or from the perspective of increased localised flooding. However, only 'Imperceptible' to 'Slight' effects have been identified. Predicted impacts to groundwater receptors are summarised in Table 11.16 of the EIAR with the following of note: - The potentially large adverse impact on any unknown private water supply could result in a '*Significant'* effect.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential cumulative impacts. A summary of the 21 No. *'other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR does not identify any significant effects (pre-mitigation) for hydrogeological considerations.

	A '*Negative'*, '*Moderate'* and '*Short-Term'* impact on the hydrology of one groundwater dependent terrestrial ecosystem (GWDTEw2) has been identified should the construction phase overlap with that of the East Meath – North Dublin EirGrid project.

9.8.32. **Mitigation**

Section 11.5 of the EIAR details the mitigation measures to be incorporated into the Construction and Environmental Management Plan (Appendix 5.4 of the EIAR). These can be summarised as follows:

- Appropriate health & safety and waste management procedures for working with potentially contaminated soils (including asbestos) and water to be put in place.
- A watching brief to be implemented to identify the potential presence of previously unidentified contamination. Personnel will be appropriately trained in ground contamination identification (including Asbestos Awareness Training) if involved in earthworks activities.
- Instances of previously unidentified contamination will be recorded, the risks assessed, and a remedial strategy developed as appropriate.
- Potential risks to workers from ground gas will be mitigated through the development and adoption of an appropriate safe system of work, including the use of personal protective equipment (PPE) and Respiratory Protective Equipment (RPE).
- The implementation of an occupational monitoring programme to identify whether radon migration and build up is occurring in areas where the risk is considered to be present. If the workplace reference level of 300Bq/m^3 is exceeded (EPA 2019a) mitigation measures will be required during the construction phase, such as development of safe systems of work to ensure protection of personnel, potentially including measures such as use of PPE, RPE and working time restrictions.

9.8.33. The following specific mitigation measures will be implemented for individual receptors such as GWDTEs and groundwater abstractions:

- For known private supplies, the mitigation measures in the CEMP will ensure no effect to groundwater quality.
- In the event any unknown private supplies are identified in the vicinity of the proposed development, the supply will be monitored and, if required, an alternative supply will be provided.
- Trenching in areas of potential GWDTEs will be kept to a minimum, with trenches backfilled as rapidly as possible and dewatering volumes kept to a minimum.
- Where trenching is carried out outside of existing roads, the methodology deployed will ensure that backfilling does not result in the creation of preferential subsurface flow pathways. Soil compaction will be undertaken and where needed on off-road sections additional clay bunds will be installed within the trench in areas that are adjacent to / in proximity of potential GWDTEs.

9.8.34. **Residual Effects**

With the implementation of mitigation measures, no significant residual effects are anticipated.

9.8.35. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

Having examined, analysed and evaluated Chapter 11 of the EIAR and all of the associated documentation and submissions on file in respect of land & soil (incl. geology and hydrogeology) considerations, I am satisfied that the applicant's understanding of the baseline environment is comprehensive and that the key impacts as a consequence of the development have been identified.

9.8.36. From a review of the available information, it is apparent that the primary potential impacts on land and soil (including geological and hydrogeological) considerations result from construction phase activities such as excavations, open cut trenching, reinstatement, Horizontal Directional Drilling, dewatering, and general construction works. However, with the implementation of the best practice methodologies and the mitigation measures set out in the Construction and Environmental Management Plan, including those pertaining to protection of the surface water environment as set out in Chapter 12 of the EIAR (such as the appointment of a full-time on-site

Environmental Clerk of Works to monitor and ensure compliance with all planning consents, environmental permits, legislation and mitigation), it is my opinion that all the construction activities proposed can be carried out with minimal impact.

9.8.37. In relation to the specific concerns raised by the Health Service Executive / Environmental Health Officer as regards the identification of private wells along the route of the proposed development and the need to protect these water supplies during the construction phase, the EIAR has identified 114 No. private water supplies with yields over 20m^3/day within the study area by reference to GSI mapping. Moreover, it has been established that while the proposed development overlaps the documented buffer zones of 7 No. boreholes / private water supplies which are understood to be used for domestic purposes, consultations with the affected landowners have not identified any such supplies thereby suggesting that those identified in the GSI database may either be abandoned or located further away from the proposed development. Although there are limitations to the accuracy of the data derived from the GSI mapping (given that there is no requirement for private water supplies to be registered with the GSI), in my opinion, the applicant has employed reasonable efforts to identify any such receptors with a view to reducing the likelihood of adverse impacts. In any event, given the prevailing hydrogeological conditions across the development site, I am inclined to agree with the applicant's submission that the shallow excavations proposed for the cable excavations (c. 1.3m deep in the public road and c. 1.7m on private lands) will be unlikely to encounter groundwater and that the impacts of any localised dewatering can be mitigated by adherence to industry good practice and the CEMP resulting in only a slight temporary effect on any affected private water supplies. The wider mitigation measures set out in the CEMP (including those pertaining to water / hydrological considerations) will also ensure no effect to groundwater quality from the proposed development.

9.8.38. With respect to the 'medium' likelihood for the discovery of unknown private supplies in the vicinity of the development and the potential for any such features to experience a consequential 'large adverse' impact and a 'Significant' effect, it is proposed to provide mitigation by way of monitoring and, if required, the provision of an alternative supply. Any such impacts will be mitigated further by subsequent adherence to the measures to be deployed for 'known' private supplies. Accordingly,

on the basis of the foregoing, and with the implementation of the mitigation proposed, I am satisfied that the proposed development will not have any significant effect on any private water supply and that the associated concerns of the HSE have been adequately addressed.

9.8.39. At this point, I note that the risk of intercepting shallow and / or perched groundwater and the potential for small-scale localised dewatering to impact on groundwater quality has been identified as having a short-term 'Moderate' effect on identified Groundwater Dependent Terrestrial Ecosystems. This is to be mitigated by keeping trenching and any associated dewatering to a minimum in areas of potential GWDTEs while the trenches themselves are to be backfilled as quickly as possible. In addition, the methodology for the backfilling of off-road trenching will aim to avoid the creation of preferential subsurface flow pathways. This will entail soil compaction and the installation of additional clay bunds within trenches in areas that are adjacent to / in proximity to potential GWDTEs.

9.8.40. In reference to the HSE's submission that the excavation of any bedrock which exposes a karstic feature may create a risk of groundwater contamination, I note that the mapping of karstic features shows none within the 250m study area while the Ground Investigations did not encounter any karstic features (although the presence of same cannot be ruled out). It has also been submitted that only one aquifer unit is described as karstified (the Rickardstown Formation, in the area between Clane and Naas) and that the surface area over it which could be impacted by the development represents only 0.3% of the total aquifer surface area. In addition, it has been suggested that with the shallow depth of the trenching proposed, bedrock geology is unlikely to be significantly impacted. Therefore, on balance, I would accept the conclusions of the EIAR that any impacts on the aquifer are likely to be negligible (but could be small adverse on affected surface watercourses) with 'Imperceptible' effect on the aquifer and 'Slight to Imperceptible' effect on connected watercourses. This is within acceptable limits.

9.8.41. With regard to ensuring the appropriate control and disposal of any contaminated material encountered during excavation works, satisfactory mitigation is included in the CEMP by way of a 'watching brief' to identify the presence of previously unidentified contamination and the subsequent development of a remedial strategy as appropriate.

9.8.42. Given the baseline conditions prevalent, and having regard to the temporary duration and impact of the proposed construction works, coupled with the implementation of suitable measures to ensure best practice site management and the minimisation of the impacts arising, I am satisfied that the construction (and operation) of the proposed development will not result in any significant impact on land and soil (including geological and hydrogeological) considerations.

9.8.43. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, I am satisfied that the impacts predicted to arise in relation to land & soil (incl. geology & hydrogeology) will be avoided, managed, and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures, and through suitable conditions. I am therefore satisfied that the proposed development would not have any significant direct, indirect, or cumulative effects in terms of land & soil (incl. geology & hydrogeology) considerations.

9.9. Land & Soil (agronomy & equine):

9.9.1. **Issues Raised:**

No specific issues have been raised as regards the impact of the proposed development on agronomy or equine considerations. However, the Board's attention is drawn to the broader objection of a third-party landowner (Mr. Patrick G. Murphy) to the proposed development as assessed elsewhere in this report.

9.9.2. **Examination of the EIAR:**

Context

Chapter 15.0 of the EIAR presents the assessment of potential impacts on agronomy and equine arising from the construction and operation of the proposed development. It has been prepared in accordance with the standard guidelines for environmental assessment (EPA, 2022) and involves:

- An evaluation of the baseline environment, the types of farms and the sensitivity of farms and equine facilities within the study area. The study area is comprised of 68 No. agricultural land parcels along the proposed development where there will be temporary or permanent landtake;

- An evaluation of the nature and magnitude of the impacts on farms within the study area and the effects on agriculture within County Kildare and County Meath (i.e. regional effects); and
- Having considered the sensitivity of the baseline agricultural and equine environment and the magnitude of effects, the effect significance is predicted for:
    - Each land parcel assessed to be directly affected by the proposed development;
    - Agriculture including equine along the proposed development (i.e. locally); and
    - Agriculture including equine within Co. Kildare and Co. Meath (i.e. regionally).

9.9.3. The assessment methodology is set out in Sections 15.2.1 - 15.2.5 with information on the baseline environment having been derived from a combination of desk-top research, consultations and roadside surveys. Details are also provided as regards the assessment criteria (such as farm enterprise sensitivity ratings and the duration of any effect) which has informed the determination of the magnitude and significance of impacts.

9.9.4. No technical difficulties or limitations in the information assessed were encountered.

9.9.5. **Baseline**

Baseline data as regards the receiving environment is set out in Section 15.3 of the EIAR.

9.9.6. The prevailing soil types in the area are Surface Water Gleys to the north of Clane and a combination of Luvisols, Brown Earths and Alluvial soil types for the remaining lands to the south. In general, the land is of good quality and suited to '*very high sensitivity'* enterprises such as stud farms and '*high'* sensitivity enterprises including dairy operations.

9.9.7. Farm sizes are typically larger than the national average while the majority of the farm enterprises within the study area are medium sensitivity (i.e. beef / sheep / tillage / grass cropping). The number of dairy farms is below the national average while the concentration of equines is significantly higher.

9.9.8. Of the 68 No. landholdings where direct effects would arise from the proposed development there are 10 No. equine enterprises (including 3 No. very high sensitivity stud farms) and 1 No. high sensitivity dairy farm.

9.9.9. **Potential Effects**

Section 15.4 of the EIAR identifies the potential effects arising during the construction and operation phases of the proposed development on agronomy and equine enterprises. The likely effects of the development are summarised in Table LS2 below.

Table LS2: Land & Soil	
Project Phase	**Potential Effects**
Do-Nothing	No adverse effects on agronomy and equine from the proposed development. However, agricultural land would continue to come under pressure from other developments (e.g. housing). While these developments will have significant negative impacts at an individual agricultural land parcel level, the effects on the wider agricultural baseline and at a regional level will not be significant.
Construction	*Potential effects from in-road construction works:* - Effects attributable to noise, dust and movements (such as the disturbance of livestock and impacts on grazing) will not be significant. - Disturbance to land access in relation to farm machinery and livestock movements will not be significant. - Disturbance to land drainage and water quality will not be significant. - The potential for weed propagation on soil heaps and subsequent spread to adjoining agricultural land will be short-medium term and not significant. - The loss of shelter resulting from the removal of relatively short lengths of hedgerow across a 30m wide working area will not be significant. *Potential effects from off-road works on agricultural lands:* - Disturbance and damage to land (such as temporary land-take) will be of medium to long term duration with a 'Not Significant' to 'Slight Adverse' effect.

	- Any severance of land services will be temporary and of 'Not Significant' to 'Slight Adverse' effect. - The potential for the spread of soil borne diseases and noxious weeds due to excavation, and movement and storage of topsoil is 'Not Significant'. - Effects attributable to noise, dust and movements (such as the disturbance of livestock and impacts on grazing) will not be significant. - Disturbance to land access in relation to farm machinery and livestock movements will have a 'Not Significant' to 'Slight Adverse' impact depending on the degree of severance etc. - A reduction in farmed areas during the construction phase may impact on a farmer's ability to adhere to the terms and conditions of Department of Agriculture, Food and the Marine area-based schemes. - Disturbance to land drainage and water quality - this potential effect is assessed as 'Not Significant' to 'Slight Adverse' having regard to the scale and duration of the impact along with the sensitivity of the affected enterprise.
Operation	- Permanent land-take due to pipeline easement and joint bays on agricultural land. - Permanent removal of trees and hedgerow along the 30m wide working area, at passing bays and adjoining in-road construction areas. - Permanent disturbance of farming activities due to the limitations and restrictions arising from the presence of the development e.g. the unavailability of lands occupied by infrastructure such as joint bays, impermissible works / future lands uses over the cable area, setback requirements, and the need for routine maintenance. - Cable markers located in field boundaries crossed by the proposed development could potentially disturb hedgerow trimming / cutting operations. The effect from the foregoing is not considered significant in 60 No. land parcels and slight adverse in 8 No. land parcels. No significant effects on animal welfare or food quality are anticipated from electric and magnetic fields.

Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential cumulative impacts. A summary of the 21 No. *'other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR identifies the following potentially significant cumulative effects (pre-mitigation): - An 'Adverse', 'Significant' and 'Long-Term' cumulative impact due to the land take required from both the proposed development and the other project on land parcel 994 (Kilcock)

9.9.10. **Mitigation**

Section 15.5 of the EIAR sets out the mitigation measures proposed. This will include:

9.9.11. Construction Phase:

- The appointed contractor to maintain close liaison with local community representatives and landowners to provide them with adequate progress information and advance notice of works. This will facilitate planning the maintenance of access to land to match the needs of the landowner. Scheduling of works will be agreed with each landowner to facilitate the operation of the farm and minimise disturbance. The movement of livestock along public roads or across the working area will be facilitated by the appointed contractor;
- Landowners with lands adjoining sites where rock breaking takes place will be notified in advance of these activities;

- Traffic management plans will ensure that farmers and agri-business have adequate access to farmyards and land so that the transport of farm inputs and produce is not significantly affected;
- The implementation of mitigation measures for:
    - the control of dust
    - the control and monitoring of water quality
    - the control and monitoring of noise and vibration.
- The appointed contractor will comply with any regulations pertaining to the control of farm diseases as specified by Department of Agriculture Food and the Marine and will employ reasonable precautions against spreading any such farm disease. The contractor will operate a biosecurity plan where machinery and personnel that are moving between farms will have adequate available disinfection facilities and equipment to ensure that disinfection can take place as required. ESB and/or its appointed contractor will also take due notice and consideration of reasonable concerns expressed by landowners or occupiers prior to entry; and
- Field boundaries to be replanted and fenced to ensure boundaries are maintained between landowners and within existing field systems. Hedgerows are to be replanted with species-rich varieties and with suitable fit for purpose fencing. In locations where replanting is not feasible (such as over the cable route), suitable fit for purpose stockproof fencing (and gates) will be provided where required.

9.9.12. *Operational Phase:*

- Drainage reinstatement will not impede the drainage of surrounding agricultural lands and where land drains have been intersected or blocked during construction these will be reconnected or diverted to a suitable outflow;
- Agricultural land permanently lost cannot be mitigated except through compensation. Restriction of Common Agricultural Policy (CAP) payments, farmyard building, commercial forestry and commercial tree planting will be addressed by compensation where applicable; and

- Routine maintenance and inspection of cable infrastructure will, where possible, be notified in advance to minimise disturbance to livestock and farm enterprises. The risk of faults requiring soil excavation is low and therefore the frequency of this type of disturbance is very low.

9.9.13. **Residual Effects**

The construction and operation of that element of the proposed development which is located entirely in-road i.e. within the public road network, will not significantly affect agriculture (including equine).

9.9.14. In reference to the off-road elements of the development, there are 68 No. land parcels within the study area where direct effects will arise (43 No. of these land parcels will have permanent wayleaves). Individual land parcel assessments are shown in Appendix 15.1 and summarised in Table 15.6. The residual impact has been assessed as 'Not Significant' in 60 No. of the land parcels with the remaining 8 No. land parcels expected to experience 'Slight Adverse' residual impacts (due to the underground cable being located on agricultural land and where there is a permanent easement). None of the slight adverse residual impacts affect high or very high sensitivity enterprises.

9.9.15. The overall residual impact on agriculture and equine within the study area is not considered significant due to 88% of all directly affected farms having a 'not significant' residual impact and a 'slight adverse' residual impact on 12% of these farms. The residual impact on agriculture in the wider region is similarly not considered significant.

9.9.16. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

No issues have been raised by any party in respect of land and soil (agronomy & equine). I have examined, analysed and evaluated Chapter 15 of the EIAR and all of the associated documentation and submissions on file in respect of this topic. Having to the available information, I am satisfied that impacts predicted to arise in relation to land and soil (agronomy & equine) can generally be avoided (with the notable exception of permanent landtake), managed, and mitigated (including by way of compensation) by the measures which form part of the proposed scheme, the proposed mitigation measures, and through suitable conditions.

9.9.17. Although an ‘Adverse’, ‘Significant’ and ‘Long-Term’ cumulative impact has been identified for land parcel 994 pre-mitigation (as per Table 21.3) in the event the construction & operational phases of the subject proposal and a housing development overlap, the lands in question are located within the built-up surrounds of Kilcock and are intended to accommodate new residential development in the context of the current Kildare County Development Plan which has been subject to Strategic Environmental Assessment. Accordingly, any potential cumulative impact will occur in conjunction with the future development of lands zoned for new housing construction. In this regard, and having considered the wider mitigation measures proposed, I am satisfied that the residual effect at this location will not be significant.

9.9.18. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, I am satisfied that the impacts predicted to arise will be avoided, managed, and mitigated by the measures which form part of the proposed scheme, proposed mitigation measures, and through suitable conditions. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect, or cumulative impacts in terms of land and soil (agronomy & equine) considerations.

9.10. **Water (incl. hydrology):**

9.10.1. **Issues Raised:**

The submission received from the Health Service Executive / Environmental Health Officer includes a series of comments as regards surface water considerations which can be summarised as follows:

- There is a risk of adverse impacts on surface water if adequate control measures are not implemented.
- Any alteration of surface water flow pathways may increase the risk of localised flooding.

9.10.2. It subsequently acknowledges that with the implementation of the mitigation measures outlined in the Planning and Environmental Considerations Report (since superseded by the Environmental Impact Assessment Report) and the Construction and Environmental Management Plan, the risk of adverse impacts on surface waters will be minimised.

9.10.3. Concerns have also been raised by a third-party observer (Mr. Patrick G. Murphy) that there has been an inadequate assessment of the flooding implications of the proposed development.

9.10.4. Kildare County Council has suggested that the project should incorporate Sustainable Drainage Systems (where feasible), although it is considered to be satisfactory, subject to conditions.

9.10.5. Meath County Council has examined the Flood Risk Assessment submitted with the application and indicated that there is no objection to the proposal from a flood risk management perspective, subject to conditions (e.g. a prohibition on the stockpiling of material within Flood Zones 'A' and 'B'). It has also submitted that all works should adhere to Inland Fisheries Ireland's '*Guidelines on protection of fisheries during construction works in and adjacent to waters'* and be supervised by an Environmental Clerk of Works and a Project Hydrologist. In addition, it has been suggested that the Board may wish to consider if an assessment under Article 4.7 of the Water Framework Directive is required to ensure that there will be no deterioration in WFD status or jeopardising of the attainment of good water status etc.

9.10.6. Notes:

1. In the interest of conciseness, the Board is advised that the flood risk management implications of the proposed development have already been considered in Paras. 8.5.1 – 8.5.14 of the planning assessment.
2. Cognisance has been taken of overlapping considerations in the assessment of likely hydrological and hydrogeological impacts and the respective chapters of the EIAR.

9.10.7. **Examination of the EIAR:**

Context

Chapter 12 of the EIAR examines the potential hydrological impacts associated with the proposed development on the surface water environment and details the relevant legislative and policy framework, assessment methodology, baseline conditions, potential effects, mitigation measures, and the residual effects post-mitigation. It

specifically considers the construction and operational phases of the proposed development in relation to:

- Surface water drainage;
- Water supply and wastewater discharge;
- Water Framework Directive (WFD) surface water objectives; and
- Flood risk.

9.10.8. With respect to the assessment methodology employed, a study area extending 250m from the centreline of the proposed development route, the upgrade works to both Dunstown and Woodland substations, construction compounds and vegetation clearance area (as shown in Figure 12.1 in Volume 2 of the EIAR), has been selected on the basis that any significant effects would likely occur at a local water body scale. By extension, any identified surface water bodies within that area have been considered as receptors which include WFD designated and non-designated water bodies.

9.10.9. Information on the baseline environment, including hydrology, hydromorphology and water quality of the surface water receptors within the study area has been collated through desk study and field surveys.

9.10.10. Given the potential limitations in using desktop data to identify surface water features / waterbodies such as rivers and ponds, this data has been supplemented by ecological surveys undertaken across areas of interest (Appendix 10.4). In addition, through the use of sources such as OS mapping and Google Earth imagery, visual observations such as planform, anthropogenic modifications, riparian vegetation, outfalls and discharges, and land use have been recorded where possible.

9.10.11. No water quality sampling has been carried out (as water quality is not a constant parameter and varies significantly depending on weather, flows and seasons) and, therefore, available EPA data has been used to establish a representative baseline. Information relating to the quality of the water bodies was drawn from the EPA's online mapping and information portals.

9.10.12. Although it is possible that some minor drainage ditches located in proximity to the works may not have been identified, it is considered that implementation of the

mitigation measures proposed will avoid, reduce or offset any potential negative effects.

9.10.13. **Baseline**

Section 12.3 of the EIAR describes the baseline environment at the development site and notes that the study area is located within the Water Framework Directive (WFD) Hydrometric Area (HA) 09 (Liffey and Dublin Bay) water catchment area before detailing the current classification status for identified WFD water bodies within the study area (by reference to the EPA river dataset) and identifying the crossing methodologies (e.g. open-cut trenching and Horizontal Directional Drilling) proposed at 28 No. interfaces along the development route (Table 12.5). This is supplemented further by the identification and detailing of another 17 No. minor non-WFD classified surface water features within the study area (derived from a review of OS mapping) along with the crossing methodologies proposed at the interfaces arising (Table 12.6). (Please also refer to Figure 10.8 of the EIAR).

9.10.14. In terms of designated sites within the study area, the River Liffey has been identified as a 'Nutrient Sensitive Area' under the Urban Waste Water Treatment (UWWT) Directive while the route of the proposed UGC will also cross the Royal Canal (Site Code: 002103) and Grand Canal (Site Code: 002104) Proposed Natural Heritage Areas. Although there are no Natura 2000 sites within the study area, it is noted that rivers associated with the Ballynafagh Bog Special Area of Conservation (Site Code: 000391) flow through the area (i.e. Slate_010: approximately 1.5km to the west of the proposed development).

9.10.15. Section 12.3.5: '*Flood Risk'* of the EIAR proceeds to refer to the site-specific flood risk assessment included at Appendix 12.1 of the EIAR which has determined that the proposed development could potentially be at low risk of flooding from fluvial and surface water in certain locations where there are interfaces between the proposed works and floodplains (with no known risk from coastal or groundwater flooding).

9.10.16. Table 12.9 of the EIAR subsequently provides an indication of the importance of those receptors that have been scoped-in based on the criteria used to evaluate their sensitivity (please refer to Table 12.2 of the EIAR).

9.10.17. **Potential Effects**

Section 12.4 of the EIAR describes the potential effects arising during the construction and operational phases of the proposed development on the surface water environment. The likely effects of the development are summarised in Table W1 below.

Table W1: Water	
Project Phase	**Potential Effects**
Do-Nothing	The current hydrological regime within the study area is not expected to change significantly. Watercourses and estuaries in the area are expected to maintain their current water quality, pressures and ecological status designations. They may see improvement overtime due to inter alia local government planning polices (such as the implementation of SuDS features) and improved wastewater management infrastructure along with future strategic infrastructure identified by Uisce Éireann.
Construction	*A deterioration in surface water quality:* • Excavation works and works associated with the creation of passing-bays, the storage of excavated material, vegetation clearance, crossing of watercourses and infilling of trenches can pose a risk to surface water quality through surface water run-off and the release of sediment to watercourse • Increased silty water run-off and disturbance in and near channel works to construct the open trench crossings; increased risk of sediment pollution from disturbed riverbed and bank material during construction of the open cut trenching and dry working area. • Increased risk of sediment pollution from disturbed riverbed and bank material during construction. • Discharges from dewatering activities to the surface water environment. • Risk of chemical pollution resulting from accidental releases of fuel, oils, cementitious material (or other polluting substances) while working adjacent to and within the waterbody. There is also the potential for bentonite break out (or slurry run-off from launch pits) to contaminate watercourses where HDD activities are taking place. *Changes to hydromorphology (including the alteration of drainage patterns from formation of impermeable surfaces and working in or near watercourses):*

	• Potential fine sediment input from construction activities. This could lead to changes to morphological features and processes (if present), including smothering of bed substrate and depositional features; • In-channel works to construct the proposed open cut crossing. Provision of a dry working area and excavations required for the cable trench will temporarily remove flow from a section of channel and would also remove natural bed substrate; • Works within the vicinity of watercourses and along the banks could remove riparian vegetation, altering and destabilising channel banks. These impacts could lead to increased erosion and sediment input into the waterbody; • Where open cut trenching is required, in-channel works to construct the proposed open cut crossing. Provision of a dry working area and excavations required for the cable trench would temporarily remove flow from a section of channel and would also remove natural bed substrate. *Changes to hydrology:* • Disruption to local drainage systems due to diversions required to accommodate the construction works, HDD compounds, construction compounds and open cut crossing, where required. • Increases in surface water run-off and thus discharge to the waterbody due to increased impermeable area from construction access tracks. Table 12.10 details the impact assessment outcomes in the absence of mitigation for the scoped-in water receptors with effects ranging from '*Imperceptible'* to *Significant'*. The most significant effects arising are '*Moderate'* (WB01, WB04, WB07 & WB08) and '*Significant'* (WB10, WB12, WB30 & WB32). *Water supply and drainage infrastructure impacts:* Although there are no known surface water abstractions within the study area and none of the WFD water bodies are designated as drinking water protected rivers (nor are they hydrologically connected to such within 5km of the proposed development), the potential remains for the disruption of services not currently identified through inadvertent damage caused by works

	activities. This could lead to water supply issues in terms of quantity and quality losses or complete severance of supply. *Flood risk:* Construction works have the potential to cause blockages and damage within watercourses, which may in turn impact floodplains and reduce their storage capacity, or increase the risk of flooding from a blocked or damaged watercourse. During the construction, there is the potential for surface water flow paths to be altered locally. This could increase the risk of surface water flooding to the local area and result in a significant adverse effect on flood risk.
Operation	*A deterioration in surface water quality during future maintenance works:* • Pollution entering surface water systems from spillages of fuels, lubricants and hydraulic oils that may be used during ongoing maintenance or along the permanent access tracks to off-road joint bays; • Alterations to the hydrological regime by altering or preventing the natural movement of surface and subsurface flows or by acting as a conduit for new flows that may carry contaminants to the receiving surface water environment. Significant adverse effects on surface water quality during operation are not anticipated. *Hydromorphology:* Where permanent access tracks to off-road joint bays remain that include culverts, there is the potential for natural processes to be affected upstream and downstream. The installation of any culverts will be to best practice to ensure no impacts.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential

	cumulative impacts. A summary of the 21 No. '*other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR identifies the following potentially significant cumulative effects (pre-mitigation) on hydrological and hydrogeological considerations should the construction phase overlap with that of certain other named projects: • Negative, Slight and Short-Term cumulative impacts on groundwater quality. • Negative, Negligible and Short-Term impact to the underlying aquifers. • Negative, Moderate and Short-Term impact on the hydrology of one groundwater dependent terrestrial ecosystem (GWDTEw2). • Negative, Significant and Short-Term impact on the Dunboyne_10 water body from the potential for an increase in sediment laden runoff, removal of bed material and changes to the bed and bank as a result of open cut trenching. • Negative, Significant and Short-Term impact on the unnamed watercourse within the Liffey_SC_050 WFD sub-catchment, from the potential for an increase in sediment laden runoff, removal of bed material and changes to the bed and bank as a result of open cut trenching. • Negative, Slight and Short-Term cumulative impacts on hydrology for the Royal Canal. • Negative, Slight and Short-Term cumulative impacts on hydrology for the Grand Canal. • Negative, Significant and Short-Term impact on the Tolka_020 watercourse from the potential for an increase in sediment laden runoff. (The Board is advised that the aforementioned cumulative impacts each relate to a potential scenario arising when the construction phase of the proposed development will overlap with that of one or more identified projects).

9.10.18. **Mitigation**

Section 12.5 of the EIAR outlines the mitigation measures proposed. The principal measure intended to ensure that adverse effects on the surface water environment are avoided or minimised during the construction phase of the proposed development comprises the implementation of the environmental management and mitigation measures set out in the Construction and Environmental Management Plan (CEMP) included at Appendix 5.4 of the EIAR (which includes the measures set out in Section 12.5 as regards general works, surface water quality protection, silt control (including the provision of silt fences and silt traps), the design & operation of the construction compounds / laydown areas, service diversions / interactions, and the use of open trench water crossings and Horizontal Directional Drilling).

9.10.19. General works measures include:

- The appointment of a full-time on-site Environmental Clerk of Works (EnCoW) to monitor and ensure compliance with planning consents, environmental permits, legislation and mitigation.
- A requirement that all works be carried out in accordance with the guidelines set out by IFI in 'Guidelines on Protecting Fisheries During Construction Works in and Adjacent to Waters (IFI, 2016)'.
- Adherence to the IFI's Biosecurity Protocol for Field Survey Works (IFI, 2011).
- The agreement of works method statements with IFI for all watercourse crossings. The works method statement will include details on silt fencing, pH monitoring requirements for in-stream concrete pouring works, and handheld turbidity monitoring for in-stream and HDD works.
- The development of an adverse weather stop work plan to ensure that activities with the potential to cause pollution are stopped under certain weather conditions. Certain activities (such as open cut trenching, HDD works) will not be carried out during extreme rainfall or high flow events. Met Eireann (Red, Amber, Yellow) warnings and flood warnings will be monitored daily by the EnCoW.

9.10.20. Specific measures pertinent to open trench water crossings include:

- No works on watercourses to be allowed until the relevant Risk Assessment Method Statements (RAMS) and pertinent Health and Safety documents are

received from the Contractor and are reviewed and agreed by the EnCoW. Relevant documentation relating to the proposed works will also be provided to IFI for approval.

- All open trench watercourse crossings in salmonid watercourses to take place during the July to September period in order to avoid the period of salmon and trout spawning.
- Temporary diversions of the watercourse for open trenching activities. Where sites require to be flumed, the diameter pipe chosen will accommodate flows at the time with spare capacity to cover that predicted over the period that the works would be expected to last. A clay material will be used around the flume pipe to create a seal. Over-pumping methods will be prohibited unless otherwise agreed with IFI. If over pumping methods are to be used for open trenching, sandbags will be used with an impermeable barrier. This method requires pumping of water from the upstream end of the barrier to an area downstream of the works area, maintaining normal flow in the watercourse either side of the isolated reach. The proposed solutions will be determined during detailed design and in consultation with IFI.
- Material excavated from the watercourse (and an upstream pump sump if required) will be placed on terram on level ground as far back from the watercourse edge as is practicable and surrounded on its downslope side by a silt fence to prevent material re-entering the watercourse. This material, if deemed suitable by the EnCoW, can be used to partially backfill the trench. However, a significant amount will be in excess and will be removed from site under licence. Dewatering of the excavation will be treated on site using settlement tanks before the settled water is returned to the watercourse. A second tank in series with the first will be used if the first is not sufficient to remove enough solids. Pumped over water will be directed to a splash plate to prevent erosion of the riverbed at the downstream side.
- The surface coarse substrate which was set aside will be used to reinstate the stream bed after the ducts have been installed and the flume pipe has been removed as well as all the damming materials. All surfaces will be reinstated to the satisfaction of the landowner and re-seeded to assist soil stabilisation.

A silt fence will be placed along the riverbank where the works were undertaken in order to prevent solids washed off the works area during heavy rainfall from entering the stream while the surface adequately re-vegetates.

- Site restoration works will be carried out following completion of any water crossings, in agreement with IFI. These works will include riverbank stabilisation, gravel replacements, etc. In all cases, the site will be restored post-installation.

9.10.21. Measures in relation to HDD water crossings are as follows:

- No drilling works to commence until the relevant RAMS and pertinent Health and Safety documents are received from the specialist Contractor and are reviewed and agreed by the Client's Representative.
- The constant monitoring of fluid volume pressure, pH, weight and viscosity during the works. The volume of cuttings produced will also be monitored to ensure that no over cutting takes place and that hole cleaning is maintained. The mud returns will be pumped to the circulation system trailer by a bunded centrifugal pump. The nature of the cuttings will also be monitored to understand the ground conditions as the drilling progresses. After the initial pilot hole is completed, it will be reused in a number of passes to reach the required bore size to enable the duct lining to be pulled. To ensure that the prevailing geological conditions have suitable cohesion that can maintain the bore during the drilling and reaming process, the specialist drilling team will pay close attention to modelled drag forces during pullback and constantly monitor load stress to ensure that modelled tensile stress, collapse pressures, hoop stress and buckling stress are not exceeded. In addition to the above measures, the rate of drilling progress will be monitored to help identify any voids or changes in strata.
- The Contractor and EnCoW will monitor river / stream flows upstream and downstream of any HDD watercourse crossings by regular visual inspection. The flow monitoring will be undertaken on a daily basis for five working days prior to the HDD, during the directional drilling and for five working days following completion of the HDD. If a noticeable change in flow conditions is observed in the reach where the HDD took place, such as losses from the

watercourse to ground, discolouration or collection of debris, investigations will take place to determine the source of issue and may require consultation with IFI.

9.10.22. In addition to the aforementioned mitigation, the following monitoring arrangements are to be put in place:

- All personnel and visitors to site will be directed to report visual indications of changes in water quality in any watercourses on site.
- Ongoing monitoring will be carried out throughout the construction phase to ensure that the mitigation measures deployed remain effective.
- The EnCoW will undertake regular visual inspection of the watercourses on site. The monitoring records will include the following minimum information:
  - Antecedent and current weather conditions;
  - Current construction activities near and in particular up-stream or up-gradient of the observation point;
  - Visual assessment of water colour, turbidity and flow rate; and
  - Details on any communication, corrective action and/or mitigation undertaken as a result of water quality issues observed.
- Certain construction activities (including HDD, open trench crossings, or wet concrete near watercourses) will be constantly supervised by the EnCoW. Visual monitoring supported by turbidity monitoring of receiving waters will be conducted by the EnCoW for the duration of works.

9.10.23. No mitigation or monitoring measures are proposed during the operational phase of the development.

9.10.24. **Residual Effects**

Table 12.10 of the EIAR details the residual effects during the construction phase for surface water features following the implementation of the mitigation and monitoring measures outlined in Section 12.5. The significance of these effects ranges from ‘Imperceptible’ to ‘Slight’.

9.10.25. No residual effects on water bodies for surface water elements have been identified during the operational phase.

9.10.26. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

Having examined, analysed and evaluated Chapter 12 of the EIAR and all of the associated documentation and submissions on file in respect of surface water considerations, I am satisfied that the applicant's understanding of the baseline environment, by way of desk-based research and field surveys, is comprehensive and that the key impacts in respect of likely effects on the surface water environment as a consequence of the development have been identified.

9.10.27. Given the nature of the proposed development, including the number and methodology of watercourse crossings along the route of the UGC (with particular reference to those that require in-stream / open-trench works as opposed to HDD), it is clear that the principal impacts arising are likely to involve a loss of surface water quality downstream (due to the release of suspended solids, sedimentation and / or other pollutants / contaminants), changes to hydromorphology within and proximate to channels, and the disruption of local drainage systems due to diversions, all during the construction of the proposed development. Table 12.10 details the impact assessment outcomes in the absence of mitigation for individual scoped-in water receptors with the most significant effects being 'Moderate' (WB01, WB04, WB07 & WB08) and 'Significant' (WB10, WB12, WB30 & WB32). In addition, several potentially significant cumulative impacts (pre-mitigation) have been identified should the construction phase of the proposed development overlap with that of other named projects (please refer to Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR).

9.10.28. In response to the foregoing, it is proposed to implement a comprehensive series of environmental management and mitigation measures to ensure that adverse effects on the surface water environment are avoided or minimised. These have been incorporated into the Construction and Environmental Management Plan (CEMP) included at Appendix 5.4 of the EIAR and include general industry good practice and more specific provisions with respect to open trench water crossings and Horizontal Directional Drilling. Provision has also been made for the appointment of an Ecological Clerk of Works, ongoing monitoring during the construction phase to ensure the effectiveness of the mitigation measures, and the constant supervision of potentially more impactful construction activities (including HDD, open trench crossings, or wet concrete near watercourses) by the EnCoW. In this regard, I am

satisfied that the potential hydrological impacts associated with the construction and operation of the proposed development can be mitigated to within acceptable limits.

9.10.29. With respect to the wider concerns raised by a third-party observer (Mr. Patrick G. Murphy), the Health Service Executive, and Meath County Council as regards the flooding implications of the proposed development, in the interests of conciseness, I would draw the Board's attention to the assessment contained in Section 8.4 of this report wherein I have concluded that the proposed development complies with the relevant provisions of the Development Plans and the '*Planning System and Flood Risk Management, Guidelines for Planning Authorities'* and will not negatively impact on the flood regime of the surrounding area.

9.10.30. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, I am satisfied that impacts predicted to arise would be avoided, managed, and mitigated by the measures which form part of the proposed scheme, proposed mitigation measures, and through suitable conditions. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect, or cumulative impacts in terms of water / hydrology.

9.11. **Air (Air Quality):**

9.11.1. **Issues Raised:**

The submission received from the Health Service Executive / Environmental Health Officer includes a broader commentary on the potential impact of the proposed development on air quality considerations. Reference is made to the potential for the construction works to give rise to dust emissions which could cause annoyance or result in damage to vegetation due to the soiling of surfaces along with the possibility that said activities could lead to increased short-term and long-term concentrations of fine particulate matter at off-site locations, which may affect human health, unless appropriate mitigation measures are implemented.

9.11.2. **Examination of the EIAR:**

Context

Chapter 8 of the EIAR assesses the potential impact of the proposed development on air quality at sensitive human and ecological receptors. It details the relevant legislative and policy framework (including the relevant emission limit values),

methodology, baseline conditions, potential effects, mitigation measures, and the residual effects following mitigation. It specifically considers the following:

- Dust impacts generated by construction activities;
- Increases in air pollutant concentrations due to additional vehicle movements during the construction phase;
- Emissions of pollutants to air from construction plant and machinery; and
- Increases in air pollutant concentrations due to additional vehicle movements during the operational phase.

9.11.3. With respect to the assessment methodology employed, given the different types of potential air quality effects or emission sources requiring assessment, different study areas have been utilised accordingly. For example, for construction dust emissions, the assessment of human receptors has focussed on areas extending up to 250m from the edge of the proposed development (in accordance with the Institute of Air Quality Management Guidance's *'Assessment of Dust from Demolition and Construction'* with consideration also being given to the effects of 'trackout' (the transport of dust and other fugitive material etc. from the construction site onto the public road network). In contrast, the study area for the assessment of changes in emissions from road traffic for human receptors is based on identifying where the construction or operation of the proposed development will lead to changes in road alignment, traffic flows or vehicle speeds on the road network which exceed relevant thresholds.

9.11.4. The air quality assessment itself has been completed in accordance with the following guidance:

- 'Assessment of Dust from Demolition and Construction (Institute of Air Quality Management Guidance, 2023)';
- 'Air Quality Assessment of Specified Infrastructure Projects – Overarching Technical Document PE-ENV-01106 (Transport Infrastructure Ireland, 2022)'; and
- 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Environmental Protection Agency, 2022)'.

9.11.5. For the purposes of clarity, it has been submitted that as the background ambient concentrations of pollutants are known to be well below the applicable limit values (by reference to the baseline conditions), supplementary air quality monitoring was not considered necessary. Accordingly, the air quality assessment has been informed by a desk-based exercise with relevant data taken from the EPA's air quality website.

9.11.6. It is of further relevance to note that although the IAQM guidance recommends that the receptor distance be based on the distance from the source rather than the works boundary, the submitted assessment has adopted a more conservative approach with the analysis assuming that all activities (i.e. demolition, earthworks, construction and trackout) could potentially occur at the edge of the application site boundary (which would not be the case in practice thus increasing the distance between the source and the receptor).

9.11.7. **Baseline**

Section 8.3 of the EIAR sets out the baseline air quality conditions prevailing at the site. It notes that Ireland is split into four main regions for the purposes of air quality and that the proposed development site is located primarily within 'Zone D - Rural Ireland', with the exception of where the cable route traverses Naas, Co. Kildare, which encroaches into 'Zone C – Cities and Large Towns'. Reference is subsequently made to the annual mean concentrations of identified pollutants (NO_2, PM_{10} and $PM_{2.5}$) recorded at the closest EPA monitoring site within Zone D (Edenderry library, Co. Offaly) which are all well below the relevant limit value. These background concentrations are considered representative of the conditions experienced at the assessed locations associated with the proposed development.

9.11.8. **Potential Effects**

Section 8.4 of the EIAR describes the potential effects arising during the construction and operational phases of the proposed development and focuses on air quality considerations. Likely significant effects of the development, as identified in the EIAR, are summarised in Table AQ1 below.

Table AQ1: Air Quality	
Project Phase	**Potential Effects**

Do-Nothing	Background air pollutant concentrations will remain similar. Construction activities will continue to be focused in existing urban areas and at the airport which could lead to short-term and long-term concentrations of fine particulate matter. Current trends in road traffic emissions will continue in the short-term, although an increased uptake in electric vehicle usage will reduce associated air pollutants in the longer term.
Construction	Dust emissions from the construction activities (demolition, earthworks, construction & trackout) with the potential to cause annoyance or the soiling of surfaces (including vegetation and ecological receptors) while any increased short-term and long-term concentrations of fine particulate matter at off-site locations can affect human health. Emissions from construction plant and machinery (non-road vehicles). Emissions from construction (road) traffic.
Operation	Negligible emissions from occasional plant and machinery used for maintenance purposes. Negligible emissions from road traffic movements associated with occasional maintenance visits.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential cumulative impacts. A summary of the 21 No. '*other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR does not identify any significant effects (pre-mitigation) on '*Air / Air Quality'* considerations.

	A negative, not significant and short-term impact from dust emissions may arise during any overlapping construction phase years.

9.11.9. **Mitigation**

Mitigation measures are outlined in Section 8.5 of the EIAR and amount to the implementation of various good practice dust suppression / mitigation measures in order to effectively manage the generation of dust at source during the construction activities. These have been incorporated into (Section 3.3) of the Construction and Environmental Management Plan (CEMP) included at Appendix 5.4 of the EIAR. By extension, I would reiterate that all construction activities will be managed through the CEMP and all works are to be carried out in accordance with the relevant national legislation and best practice guidance with a view to minimising any short-term, adverse effects on air quality considerations.

9.11.10. Given that any impacts arising during the operational phase have been assessed to be negligible, it is not proposed to implement any additional mitigation measures.

9.11.11. **Residual Effects**

With the implementation of mitigation measures (including monitoring), residual effects are set out in Section 8.6 and Table 8.17 of the EIAR. These provide that no significant residual effects on air quality will arise.

9.11.12. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

I have examined, analysed and evaluated Chapter 8 of the EIAR and all of the associated documentation and submissions on file in respect of air / air quality considerations. I am satisfied that the applicant's understanding of the baseline environment, by way of desk surveys, is comprehensive and that the key impacts in respect of likely effects on air / air quality as a consequence of the development have been identified.

9.11.13. During construction of the proposed development the principal impact on air quality will most likely arise from a combination of fugitive dust emissions emanating from the on-site construction activity, with particular reference to site clearance and excavation works, the movement of traffic and materials both within the site and along designated haul routes, and exhaust fumes from construction traffic and

machinery (both on-road and off-road). In this regard, the submitted assessment has sought to focus on sensitive human and ecological receptors proximate to the proposed development (with IAQM guidance identifying a 'human receptor' as any location where a person spends time or a property which may experience the adverse effects of airborne dust or dust soiling, or exposure to PM_{10}, while an 'ecological receptor' refers to any sensitive habitat which could be affected by dust soiling). It has also adopted a precautionary approach with a view to ensuring a robust and conservative analysis by identifying the highest dust risks and undertaking assessments at those locations with the greatest number, and proximity of, sensitive receptors to the planning application boundary. For example, the impact of dust emissions from the excavation of the cable trench and the laying of the underground cabling etc. was assessed by reference to a sample 100m section of the proposed UGC route between Chainage 45000 and 45250 (located on Primrose Gardens, approximately 1km east of the neighbourhood of Jigginstown) which was categorised as having the highest sensitivity due to the number of receptors along that part of the cable route. Similarly, in assessing the impact of dust generation from the formation of the temporary construction compounds, the analysis has focused on the largest of the proposed temporary construction compounds (Compound No. 4 at Chainage 31000) which also has the highest number of human receptors in the study area. Dust emissions from the construction works to be undertaken at the Dunstown and Woodland substations have also been considered.

9.11.14. The risk posed by the various dust emission sources at the selected assessment locations has been determined by reference to the likely emissions magnitude and the sensitivity of the area in question to the effects of the construction activities. The results of this analysis are summarised in Table 8.16 of the EIAR which identifies the highest dust risk from each emissions source at each of the assessment locations. In this regard, the dust risk used for the selection of the required level of good practice mitigation measures is 'low risk' for demolition, earthwork and construction activities, and 'medium risk' for trackout and the general mitigation measures.

9.11.15. Given the likely duration and the small number of diesel-powered plant etc. likely to operate simultaneously at the same location, it has been submitted that the potential impact on local air quality at sensitive human and ecological receptors will be negligible. Similarly, in light of the estimated maximum (140) number of construction

related Heavy Duty Vehicle (HDV) trips per day across the Temporary Traffic Management sections along the proposed UGC route, and as the network peak construction traffic predicted at any of the considered Automated Traffic count (ATC) / Junction Turning Count (JTC) locations is 92 No., it has been determined that the predicted change in HDV flows across the road network will be less than the threshold requiring an air quality assessment (as per TII's 'Air Quality Assessment of Specified Infrastructure Projects – Overarching Technical Document PE-ENV-01106)'. The total estimated number of construction workers across the proposed development at any one time is also below the applicable threshold for further assessment. Therefore, it is anticipated that any change in the concentrations of pollutants at sensitive human and ecological receptors attributable to road traffic emissions during the construction phase will be negligible and thus not of significant effect.

9.11.16. In order to ensure that adverse air quality impacts are minimised during the construction phase, Section 8.5.1 of the EIAR outlines a series of air quality mitigation measures. These include the siting of machinery and dust generating activities away from receptors as far as is practicable; the erection of solid screens or barriers around dusty activities; the use of water for dust / particulate suppression purposes where required; installation of wheel-washing systems; the switching off engines where vehicles are stationary; and avoiding the use of diesel or petrol-powered generators with the use instead of mains electricity or battery power where practicable. It is also proposed to undertake a dust-monitoring programme as part of a Construction and Environmental Management Plan. All these measures have been incorporated into (Section 3.3) of the Construction and Environmental Management Plan (CEMP) included at Appendix 5.4 of the EIAR.

9.11.17. On balance, given the inherent temporary duration and impact of the proposed construction works, coupled with the implementation of suitable measures to ensure best practice site management and dust minimisation, I am satisfied that the construction of the proposed development will not result in any significant impact on air quality in the surrounding area. Similarly, given the nature of the development proposed, I would not anticipate any significant impact on air quality during the operational phase.

9.11.18. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, I am satisfied that impacts predicted to arise in relation to air quality will be avoided, managed, and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures, and through suitable conditions. I am therefore satisfied that the proposed development would not have any significant direct, indirect, or cumulative effects in terms of air and air quality.

9.12. **Climate:**

9.12.1. **Issues Raised**

The submission received from the Health Service Executive / Environmental Health Officer has sought to emphasise how it is incumbent on every energy consumer to reduce energy consumption and greenhouse gas production in light of the Irish Government's declaration of a climate and biodiversity emergency in 2019 and the requirements of the Climate Action Plan, 2023 (since superseded). It has thus been asserted that the applicant should be required to utilise renewable energy technologies (if available) during construction and to implement any technology / initiative proven to reduce the production of greenhouse gases.

9.12.2. **Examination of the EIAR:**

Context

Chapter 20 of the EIAR examines the potential climate impacts associated with the proposed development. It details the relevant legislative and policy framework, assessment methodology, baseline conditions, potential effects, mitigation measures, and the residual effects post-mitigation. Specific consideration is given to:

- The vulnerability of the proposed development to climate change; and
- The impacts of the proposed development on climate.

9.12.3. No significant limitations to the assessment have been identified. However, while the Greenhouse Gas (GHG) Assessment has taken account of factors such as the carbon embodied within the construction materials and has applied default transport distances for the delivery of construction materials in line with best practice, details of the construction and installation processes (e.g. vehicle type and fuel mix) are not currently available as a contractor has not been appointed and, therefore, the GHG emissions associated with the construction and installation processes have been

scoped out of the GHG assessment (although it should be noted that a 15% uplift has been applied to the total material amounts as a contingency to include for uncertainty, prior to calculating the embodied carbon and transport emissions). It is also of note that the extension and upgrading works at each of the substations have been deemed minor in terms of their contribution to the total construction GHG emissions and thus they have not been considered further in the assessment.

9.12.4. **Baseline**

Current climate baseline conditions can be derived from the 1991-2020 climate averages compiled by Met Éireann (with the nearest weather and climate monitoring station located at Dublin Airport) which shows that the region in which the proposed development is situated has a temperate climate, resulting in mild winters and cool summers.

9.12.5. Projected climate changes for Co. Kildare, in terms of temperature and precipitation, are presented in Table 20.7 of the EIAR and are considered to be representative of the future baseline for both Co. Kildare and Co. Meath (i.e. the entirety of the application site). These model-based climate projections have been made under a 'high emissions scenario' and indicate that annual mean accumulated precipitation totals are likely to remain similar over the next century, although seasonal variability in rainfall will become larger with wetter winters and drier summers. Local annual mean temperatures are projected to increase by as much as 3°C by 2100, with increases in temperature across all seasons. Mean summer maximum temperatures in the region are projected to increase by up to 4.1°C by the end of the century.

9.12.6. The existing GHG baseline emissions for Counties Kildare and Meath have been quantified by their respective county councils for a baseline year of 2018 in support of their individual Climate Action Plans for 2024-2029 and are set out in Table 20.8 of the EIAR. These figures are equivalent to 2% (Kildare) and 6% (Meah) of the national total in 2018.

9.12.7. Ireland is presently failing to meet its EU binding targets under the GHG Effort Sharing Regulation (ESR) and it is further predicted that the State will exceed its 2030 target under that regulation to limit its greenhouse gas emissions by at least 42% by 2030.

9.12.8. **Potential Effects**

Section 20.4 of the EIAR describes the potential effects on climate considerations. Likely significant effects of the development, as identified in the EIAR, are summarised in Table CC1 below.

Table CC1: Climate	
Project Phase	**Potential Effects**
Do-Nothing	Climate conditions will remain the same. Future climate effects will be influenced by structural and behavioural change to enable the transition to a climate neutral, climate-resilient country consistent with the overarching government's Climate Action Plans, as filtered down to regional plans and policies.
Construction	Construction activities will generate GHG emissions. The total estimated embodied carbon and material transport emissions will be equivalent to 43,014tCO2e (as per Table 20.9) which represents a small percentage (i.e. 0.4%) of the 2030 Electricity sectoral emissions ceiling. The magnitude of this contribution to GHG emissions is classed as 'Minor Adverse' and the effect is deemed to be 'Not Significant'.
Operation	No significant effects arise as regards the vulnerability of the development to changes in climate (please refer to Table 20.10). Given the nature of the development, GHG generating activities associated with maintenance works will be very low and have been scoped out from further assessment by the applicant.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential cumulative impacts. A summary of the 21 No. '*other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR does not identify any significant effects (pre-mitigation) on climate considerations.

9.12.9. **Mitigation**

Section 20.5.1 of the EIAR sets out the following good practice measures to be implemented to reduce GHG emissions during construction of the proposed development:

- Investigating and implementing sustainable reuse of any materials won from excavation;
- The reuse, where possible, of materials and waste generated from construction works;
- Procuring locally sourced materials where reasonably practicable to reduce transportation emissions;
- Careful consideration of material quantity requirements to avoid over-ordering and generation of waste materials, while also reducing transportation-related emissions; and
- The appointed contractor to develop and implement a plan to reduce energy consumption and GHG emissions throughout construction, including, for example:
    - Monitoring of fuel and mains electricity use on site (site accommodation to have motion activated lighting and use lower power lighting techniques such as LEDs);
    - Training of plant operatives in fuel efficient driving techniques or use of appropriate technology on construction vehicles (e.g. stop – start); and
    - Consideration of renewable / and or low carbon energy sources to power construction compounds.

9.12.10. Section 20.5.2 details the following mitigation as regards the operational phase of the proposed development:

- Use of locally sourced, low carbon materials where practicable for asset replacements; and
- Regular planned preventative maintenance checks to optimise operational efficiency.

9.12.11. **Residual Effects**

Given that GHG emissions cannot be avoided as part of the proposed development, regard has been had to guidance issued by the Institute of Environmental Management and Assessment which suggests that in determining the level of significance, consideration should be given not only to the GHG emissions generated by the project, but also how the project will contribute (or not) towards achieving science-based targets and net-zero.

9.12.12. Section 20.5 identifies opportunities for carbon reduction (mitigation) during the construction phase although the effects of the mitigation are not quantifiable. Accordingly, there will be residual GHG emissions owing to the construction works, the magnitude of which have been deemed to be 'Minor Adverse'.

9.12.13. From an operational perspective, cognisance should be taken of the purpose of the proposed development which is to assist in the transfer of primarily renewable electricity from the south and southwest regions of Ireland to the east region, and its subsequent distribution within the network in Meath, Kildare and Dublin. In light of the State's commitment to net zero by 2050, the proposed development can thus be considered as supportive of system wide decarbonisation.

9.12.14. In summary, with mitigation, it is considered likely that GHG emissions from the construction and operation of the proposed development will be reduced with the residual effects arising deemed to be 'Not Significant'.

9.12.15. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

Having examined, analysed and evaluated the information contained in Chapter 20 (and elsewhere) of the EIAR along with all of the associated documentation and submissions on file in respect of climatic considerations, it is apparent that construction of the proposed development will invariably result in the emission of some greenhouse gases.

9.12.16. Table 20.9 provides a breakdown of the GHG emissions attributable to embodied carbon and material transport (totalling 43,014tCO_2e), the impact of which is to be mitigated in part by adherence to good practice measures such as the procurement of locally sourced materials (where reasonably practicable) to reduce transportation emissions. Although the aforementioned figures do not take account of the levels of GHG emissions resulting from the construction and installation processes to be employed on site (given that a contractor for the works has yet to be appointed), and

while there is a need to take due cognisance of any such emissions, I would concur with the applicant's assessment that proportionately the contribution of these emissions to those of the project as a whole will be comparatively minor. It is of further note that the impact of emissions from the actual construction & installation activities can be mitigated in part through adherence to best practice site management, including the shutting off of equipment during periods of inactivity, as set out in the Construction and Environmental Management Plan. In addition, Section 20.5.1 includes for the development and implementation of a plan to reduce energy consumption and GHG emissions during the construction phase of the proposed development that will incorporate provisions for the monitoring of fuel and mains electricity use on site; the training of plant operatives in fuel efficient driving techniques or use of appropriate technology on construction vehicles; and the consideration of renewable / and or low carbon energy sources to power construction compounds. While the Health Service Executive / Environmental Health Officer has sought a commitment from the applicant to utilise renewable energy technologies (if available) during construction, given that it is unclear at this stage as to what precise vehicles, plant and machinery will be used by the appointed contractor, in my opinion, the aforementioned measures are a reasonable response to the concerns raised and will serve as a conduit for reduced GHG emissions during the construction stage.

9.12.17. With regard to any GHG emissions attributable to routine maintenance works etc. during the operational phase of the development, I would accept that the impact of any such emissions on climatic considerations will be minimal. I am also amenable to the submission that account should be taken of the broader purpose of the proposed development and the role it will play in accommodating the provision of energy from renewable sources and achieving a reduction in greenhouse gas emissions as part of Ireland's transition to a low carbon and climate resilient society.

9.12.18. Overall, I would concur with the analysis set out in the EIAR that while there is an inevitability as regards the generation of GHG emissions during the construction and operational phases of the development, with the implementation of the mitigation measures proposed, the residual effects arising on climatic considerations can be held to be 'Not Significant'.

9.12.19. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, I am satisfied that the impacts predicted to arise regarding climate are not significant and would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures, and through suitable conditions. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect, or cumulative impacts in terms of climate.

9.13. **Archaeology, Architectural Heritage and Cultural Heritage:**

9.13.1. **Issues Raised**

Concerns have been raised by the Department of Housing, Local Government and Heritage as well as the Office of Public Works as regards the archaeological and architectural heritage implications of the proposed development, with particular reference to possible impacts on Jigginstown Castle (a National Monument).

9.13.2. **Examination of the EIAR:**

Context

Chapter 13 (as informed by Appendices 13.1 – 13.3 and Figures 13.1 – 13.6) of the EIAR presents the results of an assessment of the archaeological, architectural and cultural heritage impacts resulting from construction and operation of the proposed development. It includes details of the relevant legislative and policy framework, assessment methodology, baseline conditions, potential effects, mitigation measures, and the residual effects post-mitigation.

9.13.3. The assessment methodology is set out in Section 13.2 wherein it is detailed that a study area extending 50m from the application site boundary was adopted by way of professional judgement in order to establish a robust baseline for the identification of archaeological, architectural heritage and cultural heritage assets. Data collection involved desk-top research, the review of LiDAR data commissioned by the applicant, site inspections and walkover surveys, and direct consultation with the National Monuments Service. Details are also provided of the criteria used to determine the significance of a particular heritage asset along with the magnitude and significance of any impacts arising.

9.13.4. In reference to limitations, although not all areas were accessible during the field surveys, baseline data derived from desk-based sources is considered sufficient to inform the assessment for assets in these locations.

9.13.5. It was not possible to obtain a copy of the aerial photograph (GSI N 337-6) from the Geological Survey of Ireland which shows the locations of the enclosures recorded on the Record of Monuments and Places and the Sites and Monuments Record at Dunstown (Ref. Nos. AY_46 – 48; AY_53 – 58). However, a sketch from the aerial photograph showing the locations of these is provided in Deery (2022) and has been used to locate these enclosures. These limitations are not considered to have reduced the efficacy of the assessment.

9.13.6. **Baseline**

The baseline conditions for the archaeological, architectural and cultural heritage of the study area are set out in Section 13.3 of the EIAR (with further details provided in Appendix 13.1: *'Inventory of Archaeology, Architectural Heritage and Cultural Heritage')*. These can be broadly summarised as follows:

9.13.7. Archaeological Heritage Assets:

These include:

- 1 No. National Monument (AY_39) and 3 No. sites with Preservation Orders (AY_40, AY_42 and AY_43);
- 6 No. RHM comprising AY_13, AY_38, AY_39 (also a National Monument), AY_42, AY_43 (both sites with Preservation Orders) and AY_44.
- 6 No. Recorded Monuments (AY_02, AY_03, AY_24, AY_26, AY_51 and AY_58); and
- 17 No. sites recorded on the Sites and Monuments Record (AY_01, AY_07, AY_27, AY_41, AY_46 - AY_50, AY_52 – AY_57, AY_59, and AY_60).

9.13.8. National Monuments and Preservation Orders:

The National Monument (AY_39; also a Protected Structure) and 3 No. sites with Preservation Orders on them (AY_40, AY_42, and AY_43) form part of the

Jigginstown Castle complex. Two further sites with Preservation Orders (AY_38, AY_44; also a Protected Structure), approximately 146m and 190m to the west of the proposed development respectively and outside the study area, also form part of the complex.

9.13.9. *Register of Historic Monuments:*

A total of 6 No. sites on the RHM have been included within the baseline. Three of these sites (AY_39, AY_42, and AY_43) form part of the Jigginstown Castle complex while 2 No. other sites (AY_38 and AY_44) are associated with the complex but outside the study area.

In addition to being recorded on the RHM, AY_13 (a linear earthwork) is also a Recorded Monument (KD010-001001) and forms the townland boundary between Ballyloughan and Graiguepottle (TB_68). Identified as 'The Pale' on the Ordnance Survey 25" map of 1888–1913, this monument may be part of a boundary constructed by the Anglo-Normans to divide their lands from those held by the Irish. Therefore, as this asset holds archaeological and historical interest because of its potential to contribute to the understanding of the political and social landscape of the post-medieval period, and in consideration of its inclusion on the RHM and designation as a Recorded Monument, it has been assessed to be of 'Medium' significance.

9.13.10. *Recorded Monuments:*

A total of 6 No. Recorded Monuments are located within the study area.

- AY_26 (also a Protected Structure) holds archaeological interest because of its level of preservation and potential to contribute to the understanding of platform ringforts. It has been assessed to be of 'High' significance.
- A mound (AY_02) which is of archaeological, traditional and social interest because of its potential to contribute to the understanding of this site type through its physical remains and group value given its relationship with (AY_01). It has been assessed to be 'Medium' significance.
- A field system (AY_03), the archaeological interest of which results from its potential to contribute to the understanding of historic landscape. It has been assessed to be 'Medium' significance.

- AY_24 is a poorly preserved rath which is of archaeological interest because of its potential to contribute to the understanding of ringforts through its physical remains. It has been assessed to be 'Medium' significance.
- A small circular enclosure (AY_51) and a small rectangular enclosure (AY_58). While there are no above ground traces, there is the potential for archaeological remains below ground to survive and contribute to the understanding of these sites. They have been assessed to be of 'Low' significance.

9.13.11. *Sites and Monuments Record:*

A total of 17 No. sites recorded on the SMR have been identified within the study area, however, 4 No. of these have been removed or are no longer in situ and have thus not been included in the archaeological baseline. Table 13.3 of the EIAR provides a synopsis of the remaining 14 No. sites recorded within the study area and included in the archaeological baseline.

9.13.12. *Potential for the Presence of Unknown Archaeological Remains:*

Investigations have identified several specific off-road locations with the potential for unknown archaeological remains. Furthermore, given the number of known archaeological assets within the study area, the results of previous archaeological investigations, as well as extensive cropmarks identified from aerial photographs and sites identified from LiDAR, it has been determined that the potential for the presence of unknown archaeological remains within the remaining off-road sections is high.

The potential also arises for unknown archaeological remains in and around watercourses with the proposed development crossing 41 No. watercourses (some crossed multiple times) as identified in Table 13.4.

9.13.13. <u>Architectural Heritage Assets:</u>

These comprise (please refer to Section 13.3.3 of the EIAR):

- 6 No. protected structures (AH_06, AH_11, AH_12, AH_15, AH_18 and AH_19; see Figure 13.2). [A further 3 No. protected structures are also a

National Monument (AY_39), a site with a Preservation Order (AY_44), and a Recorded Monument (AY_26)];

- 2 No. structures included on the NIAH (AH_01 and AH_20; see Figure 13.2), assessed by the NIAH to be of regional importance; and
- 10 No. Gardens and Designed Landscapes (DL_02, DL_03, DL_04, DL_06, DL_07, DL_10, DL_14, DL_15, DL_17, and DL_20; see Figure 13.3 and Table 13.5).

No ACAs have been identified within the study area.

9.13.14. Cultural Heritage:

A total of 304 No. cultural heritage assets have been identified within the study area (see Section 13.3.4, Appendix 13.1 and Figures 13.4 –13.6) comprising:

- 82 No. cultural heritage sites identified from historic mapping, aerial imagery, and during the walkover survey and site inspections;
- 135 No. features identified from LiDAR data acquired for the Proposed Development (Appendix 13.3); and
- 87 No. townland boundaries.

Cognisance has also been had to features identified from previous excavations, topographical files, and townland boundaries in the study area.

9.13.15. **Potential Effects**

Section 13.4 of the EIAR provides a summary of the impact assessment. Appendix 13.2 presents the complete assessment of significant and non-significant impacts and proposed mitigation measures (where applicable) for archaeological, architectural, cultural heritage assets. Likely significant effects of the development, as identified in the EIAR, are summarised in Table AAC1 below.

Table AAC1: 9.13. Archaeology, Architectural Heritage and Cultural Heritage	
Project Phase	**Potential Effects**
Do-Nothing	In the absence of the proposed development, other developments requiring road alteration or development in the off-road sections will take place. These other developments may impact below or above ground archaeological, architectural or cultural heritage assets.

Construction	*Direct:* *Archaeological Heritage:* The proposed development is located within the Zones of Notification of 6 No. Recorded Monuments – Excavation of the cable trench within this zone may have a direct impact on archaeological remains. - AY_13: Permanent 'Medium' magnitude of impact with a significance of impact assessed to be 'Moderate'. - AY_02, AY_24, AY_26, AY_51 and AY_58: Permanent 'Low' magnitude of impacts with a significance of impact assessed to be 'Slight'. Construction activities, including excavation of the cable trench and joint bays, temporary passing bays, and the excavation of temporary launch and reception pits for HDD, may result in a direct impact on any previously unknown archaeological remains. Potential for impacts on archaeological remains and artefacts that may survive in watercourses and in adjacent land. Potential for structural damage to Jigginstown Castle from vibration - the vibration level has been assessed to be below the threshold for structural damage and therefore no impact from vibration was assessed. *Architectural Heritage:* Potential for accidental damage to the following structures given their proximity to the proposed development: - the entrance walls to Larchill House (AH_01; assessed to be of Medium significance), - the boundary wall associated with the thatched dwelling in Ballynagappagh (AH_11; a Protected Structure assessed to be of High significance), and - the lych gate to Millicent Church (AH_12; a Protected Structure assessed to be of High significance). *Cultural Heritage:* - Wholly remove 3 No. and partially remove 2 No. ring-ditches that form part of a group of 14 No. ring assessed to be of Medium significance;

	- Remove the footings of a small group of buildings (LI_015) assessed to be of Low significance. - Wholly remove curvi-linear features forming part of a group of cropmarks identified from aerial imagery (CH_66; assessed to be of Medium significance) - Wholly remove curvi-linear features forming part of a group of cropmarks identified from aerial imagery (CH_69; assessed to be of Medium significance) - Wholly remove an enclosure (CH_81; assessed to be of Medium significance) - Remove a mound of unknown date and function (LI_027; assessed to be of Medium Significance). - Remove a boundary/marker stone (CH_106; assessed to be of Low significance) - Former field boundaries and a possible rath (CH_121; assessed to be Low significance). The removal of c. 40m of the Gaulstown – Woodland townland boundary (TB_01; assessed to be of Medium significance) and 30m of the Gaulstown – Cullendragh townland boundary (TB_03; assessed to be of Medium significance) at ch.1,900. The magnitude of these permanent impacts has been assessed to be Medium and the significance of impact has been assessed to be Moderate. An additional 25 No. direct impacts of 'Slight' significance. <u>*Indirect:*</u> *Archaeological Heritage:* No significant indirect impacts (i.e. of Moderate significance or above) were identified. *Architectural Heritage:* No significant indirect impacts (i.e. of Moderate significance or above) were identified. *Cultural Heritage:* No significant indirect impacts (i.e. of Moderate significance or above) were identified.
Operation	<u>*Direct*</u>:

	No direct impacts were identified on archaeology, architectural heritage and cultural heritage assets *Indirect*: *Archaeological Heritage:* No significant indirect impacts (i.e. of Moderate significance or above) were identified. *Architectural Heritage:* No significant indirect impacts (i.e. of Moderate significance or above) were identified. *Cultural Heritage:* No indirect impacts on the setting of identified assets.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential cumulative impacts. A summary of the 21 No. '*other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR identifies a 'Negative', 'Moderate' and 'Permanent' impact (pre-mitigation) on AY_58 (Enclosure) as a result of the interaction between the EirGrid Dunnstown Substation Extension project and the proposed development, as both will be located within the Zone of Notification of this Recorded Monument during either the construction or operation phases of the development.

9.20.1. **Mitigation**

Section 13.5 of the EIAR sets out the mitigation measures proposed which are to be undertaken within the framework provided by the Code of Practice between the Department of the Environment, Heritage & Local Government and EirGrid (2019). In addition, all mitigation will be carried out by a suitably qualified archaeologist under

Licence (where required) granted by the Minister for Housing, Local Government and Heritage and in accordance with the provisions of the National Monuments Acts, 1930–2004 (as amended).

9.20.2. It is proposed to carry out archaeological investigations post-consent and pre-construction in all off-road sections required for construction, including land required for access tracks, passing bays and joint bays, and HDD and construction compounds to inform the design of mitigation. This will comprise archaeological geophysical survey, archaeological test excavation, palaeoenvironmental assessment, and underwater assessment in order to inform the design of archaeological excavation and further underwater surveys.

9.20.3. Mitigation measures for known archaeology, architectural heritage and cultural heritage that will be undertaken post-consent but in advance of construction comprise the following:

- Topographical survey of upstanding remains of LI_015, LI_027, LI_032 and LI_042;
- A photographic and written record of the elements of GDLs DL_14, DL_15, and DL_17;
- Written, measured and photographic survey will be undertaken for CH_106 prior to its removal. Following construction in this location, the boundary stone will be reinstated in the same location;
- Townland boundary surveys comprising detailed written and photographic survey, and test trenching of TB_01, TB_03, TB_08, TB_09, TB_10, TB_12, TB_13, TB_25, and TB_61;
- Informed by archaeological geophysical survey and archaeological test excavation, archaeological excavation of AY_13, CH_60, CH_66, CH_69, CH_76, CH_81, CH_94, CH_120, CH_121, LI_006, LI_017, LI_026, LI_038, LI_092, LI_096, LI_119, LI_125, LI_143, and LI_156;
- Underwater assessments, comprising wade and metal detecting survey of:
  - WB01 (tributary of the River Tolka);
  - WB02 (Dunboyne Stream);

- WB06 (Jenkinstown Stream);
- WB09 (unnamed stream);
- WB22 (Baltracey River);
- WB25 (Gollymochy River).

- Archaeological metal detecting survey of the banks of WB03, WB04, WB05, WB07, WB08, WB10, WB12, WB17, WB18, WB19, WB21, WB24, WB26, WB28, WB30, WB32, WB34, WB44 and WB45.

Additional mitigation is proposed as follows:

- archaeological monitoring of on-road work within the Zones of Notification of Recorded Monuments (AY_02, AY_24, AY_26, AY_51 and AY_58), works located to the east of Jigginstown Castle (AY_39, a National Monument), and for assets CH_64, CH_68, CH_74, CH_92, CH_100, CH_117, CH_118, CH_119, CH_122, LI_001, LI_009, LI_011, LI_032, LI_054, LI_056, LI_065, LI_113, LI_134, LI_145 and LI_158;
- AH_01, AH_11, AH_12, CH_03, CH_04, CH_06, CH_07, CH_24 and CH_109 will clearly demarcated with temporary fencing within the Planning Application Boundary to avoid accidental damage.

If archaeological remains are identified during the archaeological monitoring, and it is confirmed with the National Monuments Service the preservation in situ is not feasible, archaeological excavation will be undertaken under an excavation licence granted by the Minister for Housing, Local Government and Heritage and in accordance with the provisions of the National Monuments Acts, 1930–2004 (as amended).

9.20.4. **Residual Effects**

An assessment of the residual significance of effect for all affected archaeological, architectural and cultural heritage assets during construction and operation is presented Appendix 13.2. After the mitigation identified in Section 13.5, no significant residual effects have been assessed for known archaeology, architectural heritage and cultural heritage assets during construction or operation.

9.20.5. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

Upon examination, analysis and evaluation of Chapter 13 of the EIAR and all of the associated documentation and submissions on file in respect of archaeological, architectural and cultural heritage, I am satisfied that the applicant's understanding of the baseline environment, by way of desk and field surveys, is comprehensive and that the key impacts in respect of likely effects on archaeological, architectural and cultural heritage as a consequence of the development have been identified.

9.20.6. The primary concerns raised by the Department of Housing, Local Government & Heritage and the Office of Public Works relate to the proposal to undertake various works, including the siting and operation of an HDD compound, the laying of underground cabling, and the installation of a joint bay (JB60) with a permanent joint bay access track, in close proximity to the Jigginstown Castle complex. More specifically, reservations have been expressed as regards:

- The potential for the proposed development to have a significant direct (and indirect) negative and permanent impact on the monument through the disturbance / destruction of undiscovered subsurface archaeological remains;
- The potential impact of vibration, caused by the HDD and general construction operations, on the upstanding remains of Jigginstown Castle;
- The visual impact of the development on the setting and landscape features of the Jigginstown Castle complex; and
- The potential for the proposed development to undermine future plans for the redevelopment of those lands in the ownership of Kildare County Council to the east of the castle complex.

9.20.7. In the interest of conciseness, and in order to avoid unnecessary repetition, the Board is referred to my earlier assessment of these issues as set out in Section 8.6 of this report.

9.20.8. It should be noted that further protection is afforded to these monuments given the need to obtain the necessary licensing and / or Ministerial Consent.

9.20.9. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, I am satisfied that the impacts predicted to arise will be avoided, managed, and mitigated by the measures which form part of the

proposed scheme, proposed mitigation measures, and through suitable conditions. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect, or cumulative impacts in terms of archaeological, architectural or cultural heritage considerations.

9.21. **Landscape and Visual:**

9.21.1. **Issues Raised**

No specific issues have been raised as regards the impact of the proposed development on landscape or visual considerations.

9.21.2. **Examination of the EIAR:**

Context

Chapter 17.0 of the EIAR describes the landscape context of the proposed development and assesses the likely landscape and visual impacts on the receiving environment in accordance with the recommendations of the 'Guidelines for Landscape and Visual Impact Assessment' (2013) published by the Landscape Institute and the Institute of Environmental Management and Assessment.

9.21.3. The specific assessment methodology is set out in Section 17.2 of the EIAR with a study radius of 1km having been selected for each of the substations while a 500m radius was applied to the underground cable given its subterranean construction and the transient nature of the installation works involved. Data collection and collation has included the investigation of various desk-top resources, such as the relevant County Development Plans, along with supplementary information obtained from field surveys. Additional details are set out as regards the differing appraisal methods adopted for the assessment of landscape impacts and visual impacts.

9.21.4. No limitations are identified and are not evident in the assessment.

9.21.5. **Baseline**

The baseline environment is described in Section 17.3 of the EIAR (while regard should also be had to the description of the proposed UGC route set out in Chapter 5 of the document). Both the Meath County Development Plan, 2021-2027 and the Kildare County Development Plan, 2023-2029 identify 'Landscape Character Areas' across their respective counties (as shown in Figure 17.1 of the EIAR) and details of those LCAs through which the proposed development will pass (including the

relevant landscape value, importance, sensitivity, and any amenity designation) are provided in Table 17.5. In this regard, it is of note that although the northernmost extent of the proposed development is located within the Tara Skryne Hills LCA, which is identified as being of 'Exceptional' value and 'National / International' importance as per the Meath County Development Plan with a 'Low' potential to accommodate underground services, it has been submitted that the south-eastern potion of this LCA, where the proposed development will be located, does not encompass either the Hill of Tara or Skryne Hill. The remaining 'South East Lowlands' and 'Royal Canal' LCAs in Co. Meath, which are of 'Very High' and 'High' value respectively and of 'Regional' importance and 'Medium' Sensitivity, both have a 'Medium' capacity to accommodate underground services. In Co. Kildare, the route will pass through the 'River Liffey' LCA, which is of 'Special Sensitivity' and has been designated as an 'Area of High Amenity', while the remaining 'Northern Lowlands' and 'Eastern Transition' LCAs are of 'Low' and 'Medium' sensitivity respectively.

9.21.6. In terms of landscape elements, a total of 10 No. 'Gardens and Designed Landscapes' has been identified in the study area, details of which are provided in Table 13.5 of the EIAR (as opposed to the mistaken reference in Section 17.3.2.3 to Table 13.4), and while the proposed UGC will run adjacent to Larch Hill Demesne, no direct impacts are anticipated as the cabling will be laid in the public road at this location.

9.21.7. No specific landscape elements are located within that part of the study area within Co. Meath.

9.21.8. The Kildare County Development Plan, 2023-2029 also considers the compatibility of different development types by reference to various 'principal landscape sensitivity factors' (such as major rivers and water bodies, canals, ridgelines, and scenic routes) within a proximity of 300m stated to require consideration. The proposed works at Dunstown substation are not within 300m of any 'principal landscape sensitivity factors' while Table 17.6 of the EIAR details those all those factors within 300m of the proposed UGC.

9.21.9. With respect to other visual considerations, although Section 17.3.3 of the EIAR refers to a '*Landscape Appraisal of County Meath'* along with 'Map 10.2' of the Meath County Development Plan, 2021 - 2027 which purportedly confirm that there

are no 'scenic routes' or 'scenic routes with designated views' close enough to the proposed UGC route or the Woodland Substation to be adversely impacted, in my opinion, the correct references should be Appendix 5: '*Landscape Character Assessment*', Appendix 10: '*Protected Views and Prospects'* and Map 8.4: *'Views & Prospects'* of the Plan which similarly indicate that none of the identified views or prospects are in such proximity as to be negatively impacted by the proposed development.

9.21.10. Chapter 13: '*Landscape, Recreation & Amenity'* of the Kildare County Development Plan, 2023-2029 lists various scenic routes, hilltop views and scenic viewpoints in Tables 13.5, 13.6 and 13.7 which are also identified on Map Ref: V1-13.3: *'Scenic Routes and Viewpoints'* (as supplemented by Appendix 7: '*Scenic Routes'* of the Plan). Section 17.3.3 and Figure 17.1 of the EIAR have been informed by this information and identify '*Scenic View – Allen Bridge RC11'* and '*Scenic – Millicent Bridge RL6'* as falling within the study area proximate to the proposed UGC route. It has also been suggested that cognisance should be taken of the '*Royal Canal National Waymarked Way'* and the '*Grand Canal National Waymarked Way'* as additional visual receptors (given that the proposed UGC route will cross both features).

9.21.11. **Potential Effects**

Section 17.4 of the EIAR describes the landscape and visual effects of the proposed development. In this regard, it has been emphasised that the greatest potential for significant impacts on landscape character and for visual impacts to occur will be during the construction phase as there will be only very minor surface expressions of the development during the operational phase (i.e. permanent joint bays, permanent access roads, limited locations of vegetation loss, and works within the existing substations). Likely significant effects of the development, as identified in the EIAR, are summarised in Table LV1 below.

Table LV1: Landscape & Visual:	
Project Phase	**Potential Effects**
Do-Nothing	In the absence of the proposed development, the rural parts of the study area are likely to remain predominantly agricultural with limited / discrete changes to the landscape and visual environment (including the introduction of inter alia solar farms into the landscape). Around urban areas and zoned land,

	further development will occur within the next five to 10 years consolidating an urban / peri urban landscape.
Construction	All construction phase landscape character impacts (in reference to the routing of the UGC through specific Landscape Character Areas and works at the 2 No. substations) will be 'Adverse', 'Short-term' and of either 'Slight – Imperceptible', 'Slight' or 'Moderate-Slight' significance of effect. All construction phase landscape element impacts (in reference to temporary / permanent tree & hedgerow loss and identified 'principal landscape sensitivity factors') will be 'Adverse', 'Short-term' and of either 'Imperceptible', 'Slight' or 'Moderate-Slight' significance of effect. All construction phase visual impacts on residential receptors are considered to be localised, 'Short-Term' and of 'Slight' significance. All construction phase impacts on key visual receptors (i.e. identified 'scenic views' and 'waymarked ways') will be 'Adverse', 'Short-term' with either 'Slight – Imperceptible', 'Slight' or 'Moderate-Slight' effect of significance.
Operation	All operational phase landscape character impacts (in reference to the routing of the UGC through specific Landscape Character Areas and works at the 2 No. substations) will be 'Adverse', 'Permanent' and 'Imperceptible' significance of effect. All operational phase landscape element impacts (in reference to identified 'principal landscape sensitivity factors') will be 'Adverse', 'Permanent' and of 'Imperceptible' of 'Slight-Imperceptible' significance of effect. All operational phase visual impacts on residential receptors are considered to be localised, 'Adverse', 'Permanent' and of 'Slight' significance. All operational phase impacts on key visual receptors (i.e. identified 'scenic views' and 'waymarked ways') will be 'Adverse', 'Permanent' and of 'Imperceptible' significance.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential

	cumulative impacts. A summary of the 21 No. '*other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR does not identify any significant effects (pre-mitigation) on landscape and visual considerations during either the construction or operation phases of the development.

9.21.12. **Mitigation**

Mitigation measures are set out in Section 17.5 of the EIAR with the primary measure being the avoidance of impacts through design by placing the underground cable within existing roadways in order to minimise the amount of vegetation loss. It has also been submitted that the mitigation of effects on landscape and visual receptors is neither possible nor practicable in some instances e.g. it is not possible to provide landscape mitigation for the loss of land from private properties, or to provide mitigation for the loss of mature trees in the short / medium-term until the proposed replacement planting has become established.

9.21.13. *Construction Phase:*

- Upon completion of the construction phase, the road surface / agricultural grassland will be reinstated along the underground cable route for all temporary works areas with the result that any permanent material surface expression of the underground features will be minimal.
- Hedgerows removed in areas outside of any permanent easement required for the proposed UGC etc. will be replanted with a new species-rich hedgerow.
- Where applicable, vegetation removed during the construction phase at passing bays will be reinstated along the original alignment and will also be replanted with species-rich hedgerows (although replacement planting will not be possible within permanent wayleaves).

9.21.14. Additional specific landscape and visual mitigation measures are not considered necessary during the construction phase as all impacts will be either temporary or short-term and not significant.

9.21.15. *Operational Phase:*

Specific additional landscape and visual mitigation and monitoring measures are not considered necessary during the operational phase as there is no potential for significant impacts.

9.21.16. **Residual Effects**

No residual landscape or visual impacts are precited as a result of the construction and operational phases of the proposed development.

9.21.17. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

I have examined, analysed and evaluated Chapter 17 of the EIAR and all of the associated documentation and submissions on file in respect of landscape and visual considerations. I am satisfied that the applicant's understanding of the baseline environment, by way of desk and field surveys, is comprehensive and that the key impacts in respect of likely effects on landscape etc. as a consequence of the development have been identified.

9.21.18. The principle visual and landscape impacts arising during the construction and operational phases of the development will be attributable to the physical nature of the works involved and the associated alteration of the receiving environment. This will include the use of construction plant and machinery across the wider site area (including along the public road), the transportation of materials and equipment etc. to and from the site, site clearance and excavation works, the stockpiling of excavated material etc. awaiting reuse, the erection of security fencing / hoarding and site lighting, and the completion of the development itself (with particular reference to the upgrading works to the Woodland and Dunstown substations).

9.21.19. With respect to the upgrading works to be undertaken at the Woodland Substation, while I would acknowledge that the existing substation is located at the interface of the Tara Skryne Hills Landscape Character Area with the South East Lowlands LCA, the former having been identified as being of 'Exceptional' value and 'National / International' importance in the Meath County Development Plan while the latter is of

'Very High' value and of 'Regional' importance, the works in question involve the installation of electrical equipment and apparatus similar to the existing infrastructure and will be undertaken within the confines of a compound extension already permitted under PA Ref. No. 22/1550. Moreover, the scale of the works proposed will be comparatively minor relative to the size of the existing facility as well as the wider works involved in the construction of the permitted extension. It is of further note that the Woodland substation is set back from the public road and that the overground elements of the development (along with the construction works) will be screened in part by the existing substation infrastructure and other intervening features, including surrounding topography and vegetation.

9.21.20. Similarly, although the Dunstown substation is located within the Eastern Transition Landscape Character Area, which is deemed to be of 'Medium' sensitivity in the Kildare County Development Plan, the construction works will occur within the existing substation compound and involve the installation of overground electrical equipment and apparatus similar to the existing infrastructure. In addition, the scale of the works proposed is relatively minor when compared to the existing facility while the site itself is at a remove from the public road and benefits from the considerable screening afforded by the existing substation infrastructure and surrounding vegetation etc.

9.21.21. In relation to the landscape and visual impacts attributable to the laying of the proposed underground cabling, while I would concede that the physical extent of these works is considerably beyond that involved at the substations, it is of particular relevance to note that this aspect of the project will progress sequentially on a phased basis along the route of the UGC with the result that the impact of the construction works at any given location will be comparatively short-lived and localised. In this regard, and for the purposes of clarity, I note that the average rate of construction of the cable route is assumed to be approximately 40m-50m per day and that the duct installation will start at one joint bay and move towards the next along the route. By extension, the construction area will move along in tandem with the progress of the duct installation with only the minimum necessary area cordoned off (although it is anticipated that multiple crews will work along the 53km route simultaneously). Accordingly, any adverse visual impact consequent on the construction works will be short-term and localised given the specifics of the site

context at any particular location. In addition, I would concur with the EIAR that no significant operational phase impacts are likely to arise following completion of this aspect of the development works given that the cabling will be predominantly below ground with the land cover above largely reinstated.

9.21.22. Due to the nature of the development works, some degree of landscape and / or visual impact is inevitable, however, it is my opinion all such impacts are within acceptable limits. In support of the foregoing, I am satisfied that while the construction phase of the development will have certain adverse impacts on landscape and visual considerations, these will be short-term and generally of only slight significance, particularly in light of the localised and / or transient nature of the much of the works area. Furthermore, given that the proposed upgrading works to the Woodland and Dunstown substations will occur within the confines of the existing compounds against a backdrop of comparable electrical apparatus and infrastructure, and as the land cover above the proposed UGC will be largely reinstated, it is my position that the landscape / visual impacts arising during the operational stage of the proposed development are of significance.

9.21.23. While any loss of hedgerows and trees during the construction phase is regrettable and will have a localised adverse impact, I would suggest that the re-planting proposals provide for an adequate degree of mitigation.

9.21.24. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, I am satisfied that the impacts predicted to arise will be avoided, managed, and mitigated by the measures which form part of the proposed scheme, proposed mitigation measures, and through suitable conditions. I am, therefore, satisfied that the proposed development would not have any unacceptable direct, indirect, or cumulative impacts in terms of landscape and visual considerations.

9.22. Material Assets (Utilities, Land & Property):

9.22.1. **Issues Raised**

The submission received from Uisce Éireann makes a series of general observations as regards the crossing of existing UÉ assets by the proposed underground cabling and states that the associated works can be facilitated, subject to valid agreements

being put in place and provided that any development near such assets is carried out in compliance with the applicable standard details and codes of practice.

9.22.2. **Examination of the EIAR:**

Context

Chapter 16.0 of the EIAR contains an assessment of the potential effects of the proposed development on material assets by reference to the 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports' (EPA 2022) and 'Environmental Impact Assessment of Projects – Guidance on the Preparation of the Environmental Impact Assessment Report' (European Commission 2017). In this regard, while it is acknowledged that the guidance issued by the EPA identifies 'roads and traffic' and 'waste management' as topics which fall into the category of material assets, the Board is advised that these matters have been addressed separately in Chapters 14 (Traffic and Transport) and 19 (Waste) of the EIAR. Accordingly, Chapter 16.0 considers the socio-economic effects of any potential impact on the following listed land types:

- Utilities – electricity, telecommunications, gas, water supply and wastewater treatment infrastructure;
- Residential land and property;
- Commercial land and property;
- Community land and property – Public parks, open space or land that are used by the public for recreational amenity; and
- Development land – Land zoned for development (with or without planning permission) and sites with planning permission.

9.22.3. No limitations have been identified in the completion of the assessment.

9.22.4. **Baseline**

Baseline conditions for a study area of 300m either side of the planning application boundary are described in Section 16.3 of the EIAR. These have been established through the identification of utility services from publicly available datasets and mapping, consultation with utility providers, and targeted investigations, while an examination of GIS and aerial imagery has allowed for a review of all non-agricultural

properties in order to identify where there may potentially be impacts associated with the construction and operation of the proposed development.

9.22.5. Existing utility services along and crossing the proposed UGC route are described in Appendix 5.2: '*Utility Crossings'* and include the following:

- Overhead power lines;
- Underground power cables;
- Water distribution mains;
- Telecoms ducts;
- Gas mains; and
- Sewer pipes

9.22.6. The study area is dominated by a mixture of agricultural and non-agricultural lands (with the latter comprising residential clusters, single dwellings, community, industrial and commercial properties).

9.22.7. The majority of the proposed development will follow existing roads or, where deviating from the roads, will run through agricultural lands. The categories of non-residential properties located along the proposed development include:

- Schools;
- Medical facilities;
- Retail, commercial and industrial property;
- Sports and recreational facilities; and
- Churches and graveyards.

9.22.8. **Potential Effects**

Section 16.4 of the EIAR describes the potential effects of the proposed development on the identified material assets. These are summarised in Table MA1 below.

Table MA1: Material Assets (Utilities, Land & Property)	
Project Phase	**Potential Effects**
Do-Nothing	The current utilities and services identified will continue to exist and planned / permitted infrastructure will be built out. General improvements and changes

	along the route will occur, such as new connections to the various services driven by legislative and local policy measures as well as new service lines / connections associated with new development.
Construction	Imperceptible and temporary demands on existing utility services during the construction activities. Temporary local disruption during any utility diversion works – slight & temporary effects. Temporary impact on the garden of a residential property on the R125 Regional Road at approximate chainage 11200 resulting from the expected loss of part of its garden area (with an associated partial loss of amenity and general disruption) to accommodate an off-road watercourse crossing. The potential effect without mitigation will be 'Temporary' and 'Significant'. The proposed UGC will pass through a linear park and partly follow a pedestrian and cycle path that form part of approved housing development (approximate chainage 16250). The potential effect without mitigation will be 'Temporary' and 'Significant'. The temporary relocation of a bus stop on the R403 Regional Road in Firmount West (approximate chainage 33000). The potential effect without mitigation will be 'Temporary' and 'Slight'. The unavailability of some or all of the shared use footpath/cycleway along the Sallins Bypass for a temporary period during construction of the UGC. The potential effect without mitigation will be 'Temporary' and 'Moderate'. Disruption of access to the Naas Sports Centre and certain access paths to associated recreational facilities. The potential effect without mitigation will be 'Temporary' and 'Slight'. The temporary siting of an HDD compound on the southern side of the Grand Canal on scrubland adjacent to Jigginstown Castle. The significance of acquiring that land for construction is anticipated to be 'Temporary' and 'Not Significant'. Properties lining the route of the proposed development may potentially experience impacts to their access. The effect is temporary, short-term and, as access will be maintained, the significance of effect is anticipated to be 'Temporary' and 'Not Significant'.

Operation	The proposed development will improve the electricity infrastructure in the region.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential cumulative impacts. A summary of the 21 No*. 'other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR does not identify any significant adverse effects (pre-mitigation) on material assets during either the construction or operation phases of the development. When taken in conjunction with the East Meath – North Dublin EirGrid Project and the Woodland Substation Redevelopment Project, a 'Positive', 'Significant' and 'Long-Term' cumulative impact on the regional electricity network is anticipated when each of those developments and the subject proposal are operational.

9.22.9. **Mitigation**

Section 16.5 of the EIAR describes the mitigation measures proposed.

9.22.10. With respect to potential impacts on utilities, it has been emphasised that the design of the development has sought to avoid or reduce impacts on major infrastructure in the first instance. Further mitigation during the construction phase will be achieved as follows:

- Protection in place or diversion will be provided at any interfaces with existing utility infrastructure to prevent any long-term interruption to services.
- All interfaces with utilities will comply with minimum safety clearances and design standards.

- All reasonable measures will be taken to avoid unplanned disruptions to any services during the construction phase, including localised confirmatory surveys prior to excavation works.
- Works in and around known utility infrastructure will be implemented in accordance with the best practice methodologies and the requirements of the utility companies, where practicable.
- In the event of unavoidable interruptions or disturbance to services / utility infrastructure, these will be planned in advance by the appointed contractor and prior notification given to all impacted properties. Any such works will ensure that the duration of interruptions is minimised as far as practicable.

9.22.11. In relation to potential impacts on land and property, much of the mitigation has been embedded in the design by selecting a route which follows public roads for the most part thereby minimising the requirement for additional lands to be affected. Further mitigation of construction impacts will include:

- The prior agreement of access arrangements to individual properties with affected property holders.
- The implementation of the applicable traffic management plans and measures outlined in Chapter 14 (Traffic and Transport) of the EIAR and in the CEMP as regards access arrangements along affected roadways and footpaths.
- The provision of screening during construction to allow the owner of a residential property on the R125 (at approximate chainage 11200) use of their garden area. The affected land will then be reinstated to its original condition post-construction in consultation with the property owner. In addition, the cable route will be re-examined at detailed design stage to determine if the garden can be fully avoided.
- Potential impacts on the approved housing development at approximate chainage 16250 are largely mitigated by the selected UGC routing, however, further consultations with the developer and Kildare County Council will be undertaken in so far as possible, to ensure there is no disruption during construction.

- The provision of a temporary bus stop on the R403 Regional Road to ensure no disruption to bus services.
- Early notification and signage to show diversions along the Sallins Bypass and direct consultation with local interest groups.
- The phasing (where possible) of works along the Sallins Bypass so that the entire length of the cycleway and footpath will not be closed at any one time.
- Potential impacts to the Naas Sports Centre and the adjacent car park and recreational facilities are largely mitigated by the selected routing. Further consultations and notifications will ensure safe access to the facilities at all times.
- Daily cleaning of road surfaces at the Sports Centre and good site management will avoid unclean or muddy conditions while affected areas will be reinstated post-construction.
- The HDD compound on the southern side of the Grand Canal will be located on scrub land and affected vegetation will be replanted.
- Access to properties which are not being directly impacted by land take will be maintained.
- Measures will be deployed to minimise disruption to traffic and access.

9.22.12. No mitigation measures are required for the operational phase as there are no likely significant effects.

9.22.13. **Residual Effects**

With the implementation of mitigation measures, residual effects are set out in Section 16.6 and Table 16.2 of the EIAR.

9.22.14. The only significant residual effect arising results from the temporary disruption caused during the construction phase to the garden area of the residential property at approximate chainage 11200 (which arises from a proposed UGC watercourse crossing).

9.22.15. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

I have examined, analysed and evaluated Chapter 16 of the EIAR and all of the associated documentation and submissions on file in respect of the identified material assets (utilities, land & property). I am satisfied that the applicant's understanding of the baseline environment, by way of investigative work and other consultations, is comprehensive and that the key impacts in respect of likely effects on the material assets (utilities, land & property) as a consequence of the development have been identified.

9.22.16. With respect to the submission received from Uisce Éireann wherein it has been emphasised that all crossings of UÉ assets and any other works undertaken in proximity to same (including the diversion of services) must comply with its standard details and codes of practice, it is my opinion that the applicant's proposal to carry out any such works in accordance with best practice methodologies and the requirements of the utility companies, where practicable, serves to address this matter. This would include any concerns as regards the need to adhere to any required separation distances or to enter into a Build Over Agreement and / or Diversion Agreement with UÉ prior to the works taking place on the ground.

9.22.17. More broadly, while I would acknowledge that there will be some disruption / diversion / interruption of services during the construction phase, as well as possible impacts on access to facilities and properties lining the route of the proposed development, given the inherent temporary duration and impact of the construction works, coupled with the implementation of the mitigation measures proposed, I am satisfied that the impacts arising will be short-term and comparatively minor.

9.22.18. The exception to the foregoing is the anticipated temporary impact on the garden of a residential property on the R125 Regional Road at approximate chainage 11200 due to the loss of part of its garden area (with an associated partial loss of amenity and general disruption) required to accommodate an off-road watercourse crossing. Regrettably, notwithstanding the mitigation proposed (which includes the erection of temporary screening during the construction works), the residual effect arising has been found to be 'Significant'. While the impact on this property is not ideal, it will only be for a temporary duration while the land will be reinstated to its original condition post-construction. Accordingly, having regard to the wider strategic importance of the development itself, in my opinion, the short-term significant effect on the aforementioned property is justifiable in this instance.

9.22.19. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, it is considered that the only significant direct and indirect effect on the identified material assets (utilities, land & property), after the application of mitigation measures, is:

- The temporary disruption to the garden area of a residential property on the R125 Regional Road (at approximate chainage 11200) during the construction phase of the development, which will be mitigated in part through the use of screens for the duration of construction at this location in order to allow the affected owner use of their garden.

9.23. **Material Assets (Traffic and Transport):**

9.23.1. **Issues Raised**

The primary concern raised in the submission received from Transportation Infrastructure Ireland relates to the interface of the proposed works with the national road network and, in particular, the requirement that any crossing of the M4 & M7 motorways adheres to TII's established procedures and technical standards with a view to safeguarding the carrying capacity, operational efficiency, safety, and significant investment in national roads. Further recommendations are then made as regards the implementation of any Traffic Management Plan and the transportation of any abnormal / exceptional abnormal loads on the road network.

9.23.2. Kildare County Council has indicated that while it is amenable to the proposed routing of the underground cabling etc. along the Sallins Bypass (subject to certain conditions), specific concerns remain as regards the proposal to route the cabling through existing pipework at an Irish Rail bridge on the bypass; the siting of a Temporary Construction Compound and laydown area on Canal Road (parallel to the Sallins Bypass); and the location of Joint Bay No. 53 relative to the existing road restraint system on the bypass.

9.23.3. Meath County Council has also made some general observations on the traffic and transport implications of the proposed development, although it has indicated that there is no objection to the proposal, subject to conditions (including the agreement of a final Construction Traffic Management Plan and that any roadways affected by the works are satisfactorily reinstated).

9.23.4. Finally, broader concerns have been raised by a third-party observer (Mr. Patrick G. Murphy) in relation to the traffic impact of the proposed development on the surrounding road network.

9.23.5. In the interest of conciseness, the Board is advised that the foregoing issues have already been considered in my earlier planning assessment (Paras. 8.5.15 – 8.5.47).

9.23.6. **Examination of the EIAR:**

Context

Chapter 14.0 of the EIAR (as supported by the Traffic Management Plan included at Appendix 5.1) assesses the potential traffic and transport impacts arising during the construction phase of the proposed development in the context of relevant standards and guidance. It sets out the methodology, baseline conditions, potential effects, mitigation measures, and the residual effects.

9.23.7. The study area for the assessment of any impacts on traffic and transport considerations attributable to the proposed development is effectively the existing road network along the route of the proposed UGC. For ease of reference, the cable route has been split into 31 No. Temporary Traffic Management (TTM) Sections with 19 No. of these TTMs (totalling 43.6km in length) concerning 'in-road' works (mostly along regional roads).

9.23.8. **Baseline**

Section 14.3 of the EIAR describes how traffic surveys, which entailed the completion of 30 No. Junction Turning Counts (JTCs) and 30 No. Automated Traffic Counts (ATCs) along the cable route, were undertaken in 2022 to gain an understanding of representative baseline conditions. Traffic volume forecasting was then carried out for each of the JTC & ATC locations by applying the relevant growth rate projections derived from the 'National Transport Model Update: Travel Demand Forecasting Report' (December, 2019) prepared for Transport Infrastructure Ireland. In this regard, it has been submitted that while the construction phase is expected to last from 2025 until 2028, a forecast year of 2025 has been chosen because the percentage impact of the expected volume of construction traffic will be highest in this year thereby showcasing the largest relative impact that could occur.

9.23.9. **Potential Effects**

Section 14.4 of the EIAR details the likely effects of the proposed development on traffic and transport considerations which are summarised in Table TT1 below.

Table TT1: Traffic & Transport:	
Project Phase	**Potential Effects**
Do-Nothing	Traffic volumes are expected to increase along existing roads due to natural traffic growth.
Construction	Increased traffic volumes attributable to the movement of construction workers – 'Negligible' and 'Short-Term' effect. Increased traffic volumes attributable to construction traffic (HGVs): • Scenario 1 – The maximum impact of construction traffic in the immediate vicinity of each TTM section when it is assumed to be actively under construction: 'Minor' and 'Temporary' effect. • Scenario 2 – The cumulative impact of construction traffic on the local road network as a result of adjacent TTM sections being actively under construction at the same time: Negligible and Brief effect: - Locations 2, 3 & 4: 'Negligible and 'Brief' effect. - Location 1: 'Minor' and 'Temporary' effect. - Location 5: 'Minor and 'Brief' effect. • Scenario 3 – The impact of construction traffic on the wider network during the period of the construction programme which generates the greatest overall volume of construction vehicles: 'Negligible' and 'Temporary' effect. Impacts arising from severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation, and road safety considerations due to construction traffic: 'Minor' to 'Negligible effect. Driver diversion impacts are considered to be 'Negligible' to 'Minor' and of 'Brief' or 'Temporary' effect in the majority of cases, with the exception of TTM Section 2 where the impact has been categorised as 'Significant' (Moderate) but of 'Temporary' effect (while the diversion itself will only apply to HGVs). Impacts on public transport (bus services) due to route diversions and other traffic management measures are expected to be 'Negligible' to 'Minor' and of 'Temporary' effect.

	Impacts on active travel considerations (e.g. pedestrian and cycle routes) are considered to be of 'Negligible' and 'Temporary' effect. Impacts on other road users (incl. haulage routes to the Drehid Landfill) are considered to be Negligible' to 'Minor' and of 'Temporary' effect.
Operation	'Temporary' and 'Not Significant' traffic impacts consequent on future maintenance.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential cumulative impacts. A summary of the 21 No. '*other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR, the likelihood is that (in the absence of mitigation) construction of the proposed development would give rise to 'Negative', 'Not Significant' and 'Short-Term' traffic impacts along identified sections of roadways in the event it overlaps with the construction phase of certain other projects.

9.23.10. **Mitigation**

Although the construction impacts arising are generally minor or negligible and of temporary effect and therefore do not require specific mitigation, the traffic management measures required to facilitate construction of the proposed development, such as the proposed road closures and diversion routes, will be implemented through an approved Traffic Management Plan (please refer to Appendix 5.1: '*Traffic Management Plan'* of the EIAR).

9.23.11. **Residual Effects**

With implementation of the temporary traffic measures set out in the Traffic Management Plan, the residual effects of the 'in-road' temporary traffic management measures will impact on driver route choices and cause some delays due to traffic

diversions, however, in the majority of cases the driver delay impact is considered to be of no significance (i.e. 'Negligible' or 'Minor') and of either 'Brief' or 'Temporary' effect, with the exception of along TTM Section 1.02 (an approximate 4km length of the R156 Regional Road in Co. Meath) where there will be a temporary driver delay impact of 'Moderate' significance (lasting approximately seven working days) resulting from a proposed single lane closure and an associated HGV diversion of c. 27km.

9.23.12. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

In the interests of conciseness, and in order to avoid unnecessary repetition, the Board is referred to my analysis of the traffic and transport implications of the proposed development as set out in Paras. 8.5.15 – 8.5.47 of this report.

9.23.13. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, I am satisfied that impacts predicted to arise in relation to traffic and transport will be avoided, managed, and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures, and through suitable conditions. I am therefore satisfied that the proposed development would not have any significant direct, indirect, or cumulative effects in terms of traffic and transport.

9.24. **Material Assets (Waste):**

9.24.1. **Issues Raised**

Concerns have been raised by a third-party observer (Mr. Patrick G. Murphy) as regards the quantity of waste requiring off-site disposal and the volumes of material imported to the site as a result of the proposed development. More specifically, it has been submitted that the excavation and disposal of the waste along with the importation of further material will require Environmental Impact Assessment. In this regard, I would refer the Board to my earlier assessment of issues pertaining to '*Construction Waste Management'* as set out in Paras. 8.7.8 – 8.7.12 of this report.

9.24.2. **Examination of the EIAR:**

Context

Chapter 19.0 of the EIAR (as informed by the '*Construction Resource Waste Management Plan' i*ncluded at Appendix 5.5) assesses the likely waste and resource

effects associated with the construction and operational phases of the proposed development. It includes details of the relevant legislative and policy framework, methodology, baseline conditions, potential effects, mitigation measures, and the residual effects following mitigation.

9.24.3. With respect to the methodology employed, it has been submitted that although waste from the proposed development could be accepted at suitably licensed or permitted sites nationally and internationally, given that waste management planning in Ireland takes place on a regional basis, the study area adopted comprises the Eastern-Midlands Waste Region (EMWR) and has been broadened out nationally as required.

9.24.4. No limitations were encountered that could have affected the assessment. While it is not possible to accurately estimate the volume of waste generated during the operational phase, based on professional judgment, the risk of broken equipment etc. is considered to be extremely low.

9.24.5. **Baseline**

Section 19.3 of the EIAR sets out the relevant baseline conditions pertinent to the proposed development. It details the broader waste management context by reference to the Waste Framework Directive (2008/98/EC) and the Eastern Midlands Region Waste Management Plan, 2015-2021 (since superseded by the National Waste Management Plan for a Circular Economy, 2024-2030) before providing a summation of data compiled by the EPA as regards waste generation and management in Ireland over recent years. It notes that construction waste, including excavation waste, will be the main waste type generated as a result of the proposed development and that the most recent statistics available indicate that 9 million tonnes of construction & demolition (C&D) waste were generated in Ireland in 2021, an approximate 10% increase on 2020 (with 96% undergoing final treatment in Ireland and only 4% being exported abroad for final treatment). Further details are provided as regards the national baseline generation of hazardous C&D waste and municipal waste (the latter of which is expected to be generated in small quantities during the construction and operational phases of the proposed development) as well as the potential for certain materials (e.g. surplus excavated soil and stone) to

be treated as a by-product instead of a waste, as long as the material satisfies certain requirements.

9.24.6. It is anticipated that the predominant C&D waste type generated by the proposed development will be uncontaminated soil and stone and, therefore, Table 19.6 identifies those waste management facilities (and their respective capacities) within counties Kildare and Meath (and the wider Eastern and Midlands Region) which will accept such waste.

9.24.7. Only low baseline quantities of material are currently imported to the site for general maintenance purposes (although Section 19.3.4 of the EIAR includes a breakdown of the annual production of certain materials nationally based on 2019 figures).

9.24.8. **Potential Effects**

Section 19.4 of the EIAR details the likely effects of the proposed development on waste considerations and has been informed by the estimation of the quantities of material and waste arising during the construction phase set out in Appendix 5.5: '*Construction Resource Waste Management Plan'*. Likely significant effects of the development, as identified in the EIAR, are summarised in Table WST1 below.

Table WST1: Waste	
Project Phase	**Potential Effect**
Do Nothing	Available capacity in waste management facilities will continue to be used by new developments and infrastructure, in line with planning commitments but guided by the existing and future National Waste Management Plans.
Construction	The main waste streams likely to arise during the construction phase are typical for the type of project. The generation of surplus waste material will have a 'Negative', 'Significant' and 'Short-Term' effect.
Operation	No significant effects are anticipated.
Decommissioning	It is not intended to decommission the proposed electricity infrastructure. In the unlikely event that decommissioning is required, the effects would be similar but less than those assessed during construction.
Cumulative	Appendix 21.1: '*Cumulative Assessment Tables'* of the EIAR details the screening of an initial long list of 57 No. '*other projects / developments'* that were considered to have the potential to overlap (either spatially or temporally) with the proposed development thereby giving rise to potential

	cumulative impacts. A summary of the 21 No. '*other projects / developments'* subsequently carried forward for assessment, and their temporal and spatial relationship to the proposed development, is included in Table 21.2. Following consideration of those projects carried forward for assessment, Table 21.3: '*Summary of Potential Cumulative Impacts'* of the EIAR, the likelihood is that (in the absence of mitigation) construction of the proposed development will give rise to a 'Negative', 'Significant' and 'Short-Term' cumulative impact on the annual capacity of waste management facilities within the region during any overlapping with the construction of other identified projects.

9.24.9. **Mitigation**

Mitigation measures for the construction phase of the development are set out in Section 19.5 of the EIAR and include the following:

- The implementation of a Construction Resource Waste Management Plan (CRWMP) (with periodic reviewing and updating of the document as necessary throughout the construction phase) to ensure that all waste is managed in accordance with the Waste Management Act, 1996 (as amended) and relevant EPA guidance.
- All operations will serve to prevent / minimise waste production. All waste material will be managed in accordance with the waste hierarchy, with an emphasis on reuse, recycling and recovery of material over disposal where feasible.
- Opportunities for the reuse of excavated material will be sought in agreement with the planning authorities.
- Where there is no reuse potential within the proposed development of such material, its reuse as a by-product in accordance with Article 27 will be investigated by the appointed contractor(s).
- Waste management on site will accord with best practice and applicable waste legislation.

- Excavated materials from within roadways (e.g. capping, subbase and bituminous materials) will be reused or recycled in line with TII specifications where reasonably practicable.
- Hazardous waste generated during the construction or operational phase will be collected and managed by contractors in possession of a suitable Waste Collection Permit and will be disposed of at a suitably licensed hazardous waste facility.
- Materials required for construction will be sourced locally to reduce the amount of travelling required to get the material to the site.
- Construction materials will be managed on-site in order to prevent overordering and to reduce the quantity of potential waste.

9.24.10. No additional mitigation or monitoring measures are considered necessary during the operational phase of the development.

9.24.11. **Residual Effects**

With the implementation of the mitigation measures proposed, given the relatively small potential quantity of surplus material expected to be generated and the requirement for imported material during the lifetime of the construction works, no significant residual effects are expected.

9.24.12. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

In the interests of conciseness, and in order to avoid unnecessary repetition, the Board is referred to my analysis of the waste implications of the proposed development as set out in Paras. 8.7.8 – 8.7.12 of this report.

9.24.13. **Conclusion: Direct and Indirect Effects:**

I am satisfied that the impacts predicted to arise will be avoided, managed, and mitigated by the measures which form part of the proposed scheme, proposed mitigation measures, and through suitable conditions. Accordingly, it is my opinion that the proposed development will not have any unacceptable direct, indirect, or cumulative impacts in terms of waste management considerations.

9.25. **Risk of Major Accidents and / or Disasters:**

9.25.1. **Issues Raised**

No concerns have been raised as regards the risk of major accidents and / or disasters.

9.25.2. **Examination of the EIAR:**

Context

The requirements of Article 3(2) of the EIA Directive include the expected effects deriving from the vulnerability of the project to risks of major accidents and / or disasters that are relevant to the project concerned. In this regard, Chapter 18 of the EIAR (which is to be read in conjunction with Chapters 5, 8, 9, 10, 11, 12 & 20 and associated appendices) assesses the potential for significant adverse impacts consequent on the proposed development deriving from its vulnerability to risks of major accidents and / or disasters (MA&Ds) during the construction and operational phases. Based on the requirements of the EIA Directive, consideration has been given to:

- The relevant MA&Ds, if any, that the proposed development could be vulnerable to;
- The potential for these MA&Ds to result in likely significant adverse environmental effects on people and local communities, and the natural, built and historic environments; and
- The existing and proposed mitigation and management measures to prevent and mitigate the likely significant adverse effects of such events on the environment.

9.25.3. Details have been provided of the relevant legislative and policy framework, baseline environment, the risk analysis-based methodology employed (the identification and screening of potential risk events, risk classification, and risk evaluation), potential effects, mitigation measures, and the residual effects post-mitigation.

9.25.4. **Baseline**

Section 18.2 of the EIAR describes the receiving environment and notes the presence of a number of sensitive receptors (including residential properties, features of archaeological & architectural heritage value, sensitive habitats and protected sites, and water resources etc.) along or near the route of the proposed development that may be vulnerable to major risk and / or natural disasters.

9.25.5. In terms of natural hazards, it is noted how Ireland's geographic location means it is less vulnerable to natural disasters such as earthquakes or tsunamis, although it is acknowledged that severe weather events, such as those leading to flooding and flash flood incidents, pose one of the most common risks, particularly in the context of climate change.

9.25.6. No geo-stability hazards have been identified, save for the potential presence of karst features in areas of underlying limestone.

9.25.7. With respect to anthropogenic hazards, 3 No. industrial sites operating under an Industrial Emissions Directive (IED) licence issued by the Environmental Protection Agency are located within 1km of the proposed development. A further 6 No. establishments regulated under the Control of Major Accident Hazards Involving Dangerous Substances Regulations (SEVESO) are situated within 30km of the centreline of the proposed UGC route, however, given the separation distances involved, only the Irish Industrial Explosives at Clonagh, Enfield, Co. Kildare, approximately 7.1km to the west of the proposed development, has been screened into the assessment.

9.25.8. It is also noted that the proposed development will cross and directly impact on existing utilities (including gas, power and water services) during the construction phase.

9.25.9. **Potential Effects**

Section 18.4 of the EIAR refers to the potential effects arising and presents an analysis of identified risk events in tabular form (Table 18.5) along with a determination of the '*Resulting Risk Categories'* (based on a worst-case scenario and in the absence of any mitigation measures or emergency plans that may be put in place). The results of this evaluation are presented in Table 18.6 which shows that none of the Risk IDs (Risk Events) have been assessed to fall within either the Red Zone ('High' risk scenario) or the Amber Zone ('Medium' risk scenario).

9.25.10. Although Risk IDs C1, C18, and C20 (all of which arise during the construction stage) are not shown as falling within the Amber Zone ('Medium' risk scenario) of Table 18.6 (and have each been assigned a 'Resulting Risk Category' of 'Low' in Table 18.5 which is the same as all the other Risk IDs), the EIAR has deemed these

Risk IDs to nevertheless fall within the Amber Zone ('Medium' risk scenario) and has taken them forward for further consideration and assessment of mitigation measures.

9.25.11. **Mitigation**

Section 18.5 of the EIAR states that the design of the proposed development has been informed by an iterative process with the result that it incorporates embedded mitigation measures, with a particular emphasis on avoiding or reducing the potential for environmental impacts, where practicable. Further reference is made to the various obligations imposed on the project design under the Safety, Health and Welfare at Work Act, the Safety, Health and Welfare at Work (Construction) Regulations, and other statutory provisions. In addition, the following specific mitigation measures are listed:

- The Construction and Environmental Management Plan will ensure that the proposed construction works are undertaken in a logical, sensible and safe sequence with the incorporation of specific environmental control measures relevant to the construction works.
- The Construction Resource Waste Management Plan which forms part of the CEMP will ensure that waste arising during the construction phase is managed and disposed of in a way that complies with the Waste Management Act, 1996, as amended.
- The development and implementation of a Traffic Management Plan (TMP) to reduce the risk of any major accidents or natural disasters resulting from a road traffic accident associated with the proposed development.
- An Environmental Incident Response Plan will form part of the CEMP which demonstrates how, in the unlikely event of an incident, response efforts will take place promptly, efficiently, and suitably for the particular circumstances.

9.25.12. It has been submitted that the EIAR has considered reasonable worst-case consequences to the effect that the actual risks arising are unlikely to be greater than those assessed.

9.25.13. **Residual Effects**

With the implementation of mitigation measures, no significant residual impacts are expected to arise during the construction or operational phases of the proposed development.

9.25.14. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

Having examined, analysed and evaluated Chapter 18 of the EIAR, I am satisfied that the applicant has presented a reasonable assessment of the likely risk of direct and indirect significant effects on the environment derived from the vulnerability of the proposed development to risks of major accidents and / or disasters as well as the potential for the proposed development to cause major accidents and / or natural disasters.

9.25.15. The broader site context is characterised by a predominantly rural landscape interspersed with intermittent instances of residential and agricultural development, with the notable exception of that part of the proposed UGC route which passes through the built-up area of Naas town. The area is not prone to natural disasters and there are no sites regulated under the Control of Major Accident Hazards Involving Dangerous Substances Regulations (SEVESO) either at or in the vicinity of the development site (with the separation distance from the closest such facility, namely Irish Industrial Explosives at Clonagh, Enfield, Co. Kildare, being considerably in excess of the required consultation distance). Furthermore, I am satisfied that there are no significant risks of major accidents or sources of pollution associated with the development while matters pertaining to issues such as health and safety during construction works, fire safety, and compliance with the Building Regulations are governed by normal protocols and statutory requirements.

9.25.16. **Conclusion: Direct and Indirect Effects:**

Having considered the contents of Chapter 18 of the EIAR and having regard to the location of the site, the nature of the site and surrounding uses, and the nature and scale of the proposed development, I am satisfied that the subject proposal is unlikely to be a risk in itself and that there are unlikely to be any effects deriving from major accidents and / or disasters. With the implementation of the proposed mitigation measures, I am satisfied that there is no potential for significant direct, indirect or cumulative environmental effects as a result of vulnerability to the risk of accident and/or natural disaster.

9.26. Cumulative Impacts & Environmental Interactions:

9.26.1. Issues Raised

Within the submission received from Meath County Council the Board has been requested to consider the potential cumulative impact arising from the proposed removal of 5.4km of hedgerow and the felling of at least 1,522 No. trees between the subject development and the East Meath – North Dublin 400kV and Substation Project (ABP Ref. No. ABP-319422-24) along with any associated impact on ecological corridors (protected under Article 10 of the Habitats Directive).

9.26.2. Examination of the EIAR:

Context

Chapter 21 of the EIAR assesses the potential for cumulative impacts arising from the proposed development in combination with approved projects and developments or other projects and developments which, at the time of assessment, were yet to be approved, but for which a decision was reasonably foreseeable over the likely consenting and construction period anticipated for the subject proposal. It also considers the potential for interactions between impacts on different environmental factors of the proposed development itself. The chapter should be read in conjunction with Chapters 7 - 20 of the EIAR (and relevant appendices) in addition to Appendix 21.1 of the EIAR which contains a detailed assessment of other developments / projects.

9.26.3. Section 21.3 of the EIAR sets out the methodology applied which involved a desk-based assessment that established an initial long list of 57 No. *'other projects / developments'* that were considered to have the potential to overlap with the proposed development thereby giving rise to potential cumulative impacts. A total of 21 No. '*other projects / developments'* were subsequently short-listed and carried forward for assessment (having regard to factors including their temporal and spatial relationship to the proposed development) as identified in Table 21.2. This short-list includes the East Meath – North Dublin Grid Upgrade Project (Project ID CP1021).

9.26.4. Baseline

Please refer to the preceding assessments of the individual environmental topics.

9.26.5. Potential Effects

Potential cumulative impacts that could arise in the absence of any mitigation for the proposed development are summarised in Table 21.3: *'Summary of Potential Cumulative Impacts'* of the EIAR.

9.26.6. **Mitigation**

For the majority of environmental topics, no additional mitigation measures other than those detailed in the EIAR and the Construction and Environmental Management Plan are considered to be required to mitigate the identified cumulative impacts. However, the following additional mitigation measures are to be implemented in the event that the construction phase for the proposed development overlaps with that of the East Meath – North Dublin Grid Upgrade (Project ID CP1021) occur at the same time, due to the spatial overlap between the two developments in the '*Woodland Corridor'* (please refer to Figure 21.2 in Vol. 3 of the EIAR) which extends from the Woodland Substation southwards to the R156 Regional Road:

- Air Quality: Liaison meetings with the CP1021 construction management team / appointed contractor will be held to ensure plans in the Woodland Corridor are coordinated, in order to reduce cumulative dust and particulate matter emissions. As part of this liaison process, the appointed contractors will be required to determine the interactions of the offsite transport / deliveries which might be using the same strategic road network routes;
- Hydrology: Given the proximity of the two development crossings of the Dunboyne Stream_010 water body, coordination of the construction programmes for the two developments will be required between the respective appointed contractors to ensure that, where possible, works to cross the water body are undertaken at the same time, and as such, minimising disruption;
- Traffic: Coordination of the construction programmes for the two developments will be required to ensure that there are no conflicting road closures from either development at the same time;
- Traffic: Cumulative construction traffic will also be timed to avoid peaks in construction programmes, where possible; and

- Material Assets: Coordination / consultation between the appointed contractors for the two developments will be required in the event that there are overlapping works within the Woodland Corridor area. Any future utility work identified as being required during the construction phase will be undertaken in consultation with the relevant utility companies.

9.26.7. **Residual Effects**

With the implementation of the mitigation measures included in the EIAR and the CEMP, in addition to the additional mitigation outlined above, no negative significant residual cumulative impacts are identified.

9.26.8. When taken in conjunction with the East Meath – North Dublin EirGrid Project and the Woodland Substation Redevelopment Project, a 'Positive', 'Significant' and 'Long-Term' cumulative impact on the regional electricity network is anticipated when each of those developments and the subject proposal are operational.

9.26.9. **Environmental Interactions**

Table 21.5 of the EIAR sets out a matrix to indicate where interactions between different impacts on different environmental factors have been addressed. Key interactive effects are:

- Biodiversity and Hydrology – interactive impacts could potentially occur to the surface water environment. They could include potential impacts on aquatic species, requiring mitigation measures;
- Biodiversity and Landscape and Visual – interactive impacts could potentially occur as a result of loss of habitats (hedgerows, trees, grassland, etc.);
- Archaeology, Architectural Heritage, and Cultural Heritage and Landscape and Visual – interactive impacts could potentially occur in relation to the landscape character and setting of cultural heritage assets;
- Archaeology, Architectural Heritage, and Cultural Heritage and Soils, Geology and Hydrogeology – interactive impacts arising from dewatering could potentially impact on cultural heritage sites, such as historical wells; and,
- Material Assets, Agronomy and Equine, Air Quality, Noise and Vibration, Traffic and Transport, and Population and Human Health – interactions in the

human environment are typically complex as there is the potential for receptors to be impacted in a number of ways.

9.26.10. **Analysis, Evaluation and Assessment: Direct and Indirect Effects:**

With respect to the concerns raised by Meath County Council as regards the potential for cumulative impacts should the construction phase of the proposed development overlap with that of the East Meath – North Dublin 400kV and Substation Project, Table 21.3 of the EIAR has identified the following impacts (pre-mitigation):

- Negative, Significant and Short-Term impact on Dunboyne_010, if construction phases were to overlap, due to the requirement of both projects to cross this water body.
- Negative, Significant and Long-Term impact due to the loss of treelines / grassland between the entirety of both projects
- Negative, Significant and Long-Term impact on bats due to the loss of nesting and foraging habitat due to the removal of treelines / grassland between the entirety of both projects
- Negative, Significant and Medium-Term impact on breeding birds due to impacts to trees and hedgerows during the construction phases at a local level for construction phases.

9.26.11. The potential cumulative impact on the Dunboyne Stream_010 water body is to be addressed by way of a specific additional mitigation measures whereby coordination of the construction programmes for the two developments will be required to ensure that, where possible, any works crossing the water body are undertaken at the same time so as to minimise disruption.

9.26.12. In relation to those cumulative impacts resulting from the loss of treelines & hedgerows, it is appropriate at the outset to review the significance of any such impacts consequent on the proposed development by itself. In this regard, Section 10.5.2.4 of the EIAR (as informed by Section 5.5.9) provides an overview of the habitat types within the study area. Table 10.23 subsequently details those habitat types likely to be lost, either temporarily or permanently, within the planning application boundary, including the areas and percentage losses involved along with

the significance of the loss. Notably, for both '*WL1 – Hedgerows'* and '*WL2-Treelines',* a significant effect has been recorded due to the local – county impact and the scale of habitat loss involved. In turn, this habitat loss is expected to have a negative effect on breeding birds and bats. Table 10.24 then provides a summary of the potential construction phase impacts in the absence of mitigation which reiterates the likely significant localised effects on hedgerows, birds and bats due to habitat loss. Section 10.6.4.1 proceeds to set out a number of site-wide mitigation measures which will be applied across the proposed development to avoid, prevent, reduce or, if possible, offset identified significant adverse effects, including any impacts on breeding birds and bats. In addition, Section 10.6.4.2 details a series of mitigation measures specific to various elements of the proposed development which includes general requirements for the reinstatement of hedgerows across the site area.

9.26.13. Although it is envisaged that the mitigation to be employed will address the predicted impacts on breeding birds and bats, Section 10.7 of the EIAR states that there will be a short to medium term significant residual effect at local-county scale from the loss of hedgerows and treelines (WD1, WL1 and WL2) until new species-rich hedgerows and treelines are established. In addition, a permanent significant residual effect of county scale is estimated from the loss of mature trees as these cannot be compensated with replacement planting due to the time taken for trees to reach maturation.

9.26.14. Notwithstanding that compensatory measures are proposed for hedgerows, treelines and individual trees, it is accepted that there will be an inevitable loss of biodiversity until these habitats are established (approximately 5-10 years for hedgerows and 20-30 years for treelines and individual trees). The loss of mature trees has also been held to amount to a permanent residual effect of county significance due to the time taken for replacement trees to reach maturation. However, it has been submitted that following off-site compensation there will be a net gain in WL1: '*Hedgerows'*, WL2: '*Treelines'* and overall tree numbers (please refer to Table 10.26: *'Net habitat loss areas and Gains of Important Ecological Features (IEF) after mitigation and after compensation'*).

9.26.15. (For the purposes of completeness, while the loss and degradation of 0.78 hectares of GS4: '*Wet Grassland'* has been found to have a permanent significant residual effect at a local level given that there are no compensation options available to offset

this impact, I would suggest that this impact is within acceptable limits given the limited area involved).

9.26.16. Accordingly, the likely short-medium term significant residual effect at local-county scale from the loss of hedgerows and treelines, and the permanent significant residual effect of county scale from the loss of mature trees, is proposed to be off-set by compensatory planting. In this regard, it is my opinion that while the loss of trees and hedgerows as part of the proposed development is regrettable, given the wider strategic importance of the infrastructure in question, the mitigation proposed by way of reinstatement, and the net gain in tree numbers once cognisance is taken of the off-site compensatory planting, the significant effects arising are within acceptable limits.

9.26.17. Similarly, while I would acknowledge the potential for significant cumulative residual impacts to arise as a result of tree and hedgerow loss should the construction phases of the proposed development and the East Meath – North Dublin Project overlap, given the wider strategic importance of the developments in question, I am satisfied that any such effects can be accepted and that a refusal of permission would not be warranted.

9.26.18. **Conclusion: Direct and Indirect Effects:**

Having regard to the foregoing, in the event the construction phases of the proposed development and the East Meath – North Dublin Project were to overlap, there is a likelihood of a significant cumulative impact after the application of mitigation measures arising from the broader loss of hedgerows and treeline habitats. However, given the wider strategic importance of the developments in question, the mitigation measures proposed, and the proposals for off-site compensatory planting, the significant effects arising are within acceptable limits.

9.27. **Reasoned Conclusion:**

Having regard to the examination of environmental information contained above, and in particular to the EIAR and the supplementary information provided by the applicant, the report from the planning authority, and submissions by prescribed bodies and observers in the course of the application, it is considered that the main significant direct and indirect effects of the proposed development on the environment, with the implementation of proposed mitigation measures are:

Biodiversity:

- A ‘Short to Medium’ term ‘Significant’ residual effect at ‘Local-County’ scale from the loss of hedgerows and treelines (WD1, WL1 and WL2) until new species rich hedgerows and treelines are established.
- A ‘Permanent’ ‘Significant’ residual effect estimated at ‘County’ significance from the loss of mature trees as trees cannot be compensated with replacement planting due to the time taken for trees to reach maturation.
- A ‘Short to Medium’ term ‘Significant’ residual effect at ‘Local’ level from the loss of dry meadow and grassy verge (GS2) until new grassland and meadows can establish. There are no compensation options available for wet grasslands (GS4).

Material Assets:

- The temporary significant disruption to the garden area of a residential property on the R125 Regional Road (at approximate chainage 11200) during the construction phase of the development, which will be mitigated in part through the use of screens for the duration of construction at this location in order to allow the affected owner use of their garden.

Cumulative Impacts & Environmental Interactions:

- In conjunction with the East Meath – North Dublin EirGrid Project and the Woodland Substation Redevelopment Project, a ‘Positive’, ‘Significant’ and ‘Long-Term’ cumulative impact on the regional electricity network when each of these developments and the subject proposal are operational.
- In conjunction with the East Meath – North Dublin Project, a significant cumulative impact after the application of mitigation measures arising from the broader loss of hedgerows and treeline habitats.

Notwithstanding, the conclusions reached in respect of the inability of the proposed measures to fully mitigate the aforementioned impacts, it is considered that the environmental effects would not justify a refusal of planning permission having regard to the overall benefits of the proposed development.

10.0 Appropriate Assessment

10.1. Compliance with Article 6(3) of the Habitats Directive:

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.

10.2. Background on the Application:

10.2.1. 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.

10.2.2. The planning application has been accompanied by an 'Appropriate Assessment Screening Report' (April, 2023) and Natura Impact Statement (April, 2023) prepared by Jacobs Engineering Ireland Ltd. These documents are supplemented further by an updated 'Appropriate Assessment Screening Report' (January, 2024) and Natura Impact Statement (February, 2024) received by the Board on 13th March, 2024.

10.2.3. Both screening exercises have been prepared in line with current best practice guidance and provide a description of the proposed development and identify the potential for significant effects on European Sites within a possible zone of influence of the development and whether the proposed development is likely to have any significant effects upon any Natura 2000 sites found to have connectivity with the proposed development. They have been informed by a combination of desk-top research and field surveys.

10.2.4. The updated screening exercise has identified 16 No. Natura 2000 sites within 50km of the application site boundary (as shown in Figure 321084AH-JAC-ZZ-XX0DR-K-3000), however, by employing the source-pathway-receptor model of assessment, connectivity pathways for potential impacts within the Zone of Influence of the

proposed development have only been found in respect of 2 No. of those sites as follows:

- The Rye Water Valley / Carton Special Area of Conservation (Site Code: 001398):

  The proposed development is in the same water catchment (WFD catchment 09 Liffey and Dublin Bay) and the shortest hydrological distance between the proposed development and this SAC is 8.15km, commencing at Kilcock (Rye Water, WB13). Accordingly, there is **hydrological** connectivity between the proposed development site and the SAC.

- The River Boyne and River Blackwater Special Area of Conservation (Site Code: 002299):

  Given the commuting and foraging capabilities of otter (a qualifying species of the SAC), the potential arises for **ecological** connectivity between the proposed development site and the SAC.

10.2.5. With respect to the remaining Natura 2000 sites within a 50km radius of the application site (i.e. River Boyne and River Blackwater SPA, Ballynafagh Bog SAC, Ballynafagh Lake SAC, Mouds Bog SAC, Poulaphouca Reservoir SPA, Pollardstown Fen SAC, North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, North-West Irish Sea SPA & Howth Head Coast SPA), having regard to the separation distances involved and / or the lack of any hydrological or ecological connectivity, there is no route for the proposed development to have any potential negative impact on the qualifying interests of those sites.

10.2.6. The applicant's AA Screening Report (January, 2024) has concluded that:

> *'. . . in the absence of mitigation measures it cannot be excluded, on the basis of objective scientific evidence, that the Proposed Development, individually or in combination with other plans or projects, will have a significant effect on the Rye Water Valley / Carton SAC.*
>
> *It is therefore recommended that the Proposed Development is progressed to Stage 2 Appropriate Assessment which will comprise a*

detailed examination of effects on the integrity of this European site. Detailed information to inform the AA for the Proposed Development will be presented in an NIS which will be submitted to enable the Competent Authority to undertake an AA in respect of the Proposed Development'.

10.2.7. Having reviewed the documentation submitted with the application, and the submissions received, 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.

10.2.8. **Screening for Appropriate Assessment - Test of likely significant effects:**

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 a European site(s).

10.2.9. The proposed development is examined in relation to any possible interaction with European sites, i.e. designated Special Conservation Areas (SAC) and Special Protection Areas (SPA), to assess whether it may give rise to significant effects on any European Site.

10.2.10. **Brief description of the development:**

The applicant provides a description of the project in Section 4 of the original NIS (April, 2023), Section 1.2 of the later NIS (January, 2024) and elsewhere, with particular reference to Chapter 5 of the Planning and Environmental Considerations Report received with the initial planning application and Chapter 5 of the Environmental Impact Assessment Report received by way of further information on 13th March, 2024. In summary, the subject proposal comprises the development of 52.9km of new 400kV underground cable, with associated equipment, apparatus and structures, and site development works, between the Dunstown 400kV substation in Co. Kildare and the Woodland 400kV substation in Co. Meath, as well as works in both substations to facilitate the connection of the underground cable into the electrical grid.

10.2.11. The application has been accompanied by a Planning and Environmental Considerations Report, Planning Report, Appropriate Assessment Screening Report, Natura Impact Statement, plans and drawings, and the relevant statutory particulars.

An Environmental Impact Assessment Report along with an updated Appropriate Assessment Screening Report and Natura Impact Statement were received as further information.

10.2.12. The proposed development site encompasses both the Woodland 400kV substation in the townland of Woodland, near Batterstown, Co. Meath, and the Dunstown 400kV substation in the townland of Dunstown, near Two Mile House, Co. Kildare, along with the route of the underground cable (UGC) between those substations. Approximately 37.8km of the proposed UGC will be located in Co. Kildare with the remaining 15.1km located in Co. Meath. It is further estimated that 82% of the UGC will be laid along public roads with the remaining 18% traversing privately held (and predominantly agricultural) lands (off-road routes have been proposed at particular locations to avoid specific constraints). Further details of the UGC route are set out in Section 2 of this report.

10.2.13. An overview of the baseline environment is given in Section 3 of the AA Screening Report (this is supplemented by the details provided in the EIAR and its associated appendices & figures as summarised in Section 9.0 of this report).

10.2.14. Taking account of the characteristics of the proposed development in terms of its location and the scale of works, the following issues are considered for examination in terms of implications for likely significant effects on European sites:

- Construction related – uncontrolled surface water / silt / construction related pollution.
- Habitat loss / fragmentation
- Habitat disturbance / species disturbance.

10.2.15. **Submissions and Observations:**

All submissions and observations received from interested parties are set out in Section 5.0 of this report.

10.2.16. **European Sites:**

The development site is not located in or immediately adjacent to a European site. The closest European site is the Ballynafagh Bog SAC (Site Code: 000391), approximately 1.6km west of the development site at its nearest point. Table 5.1 of the applicant's screening exercise considers the potential interactions of the

proposed development with those Natura 2000 sites within a possible zone of influence of the proposed development. These are presented in the table below. Where a possible connection between the development and a European site has been identified, these sites are examined in more detail.

European Site	Qualifying Interest / Special Conservation Interest	Distance from the proposed development	Connections (source-pathway-receptor)	Considered Further in Screening
Rye Water Valley / Carton Special Area of Conservation (Site Code: 001398)	Petrifying springs with tufa formation (Cratoneurion) [7220] Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]	Approximately 6.2km east	Hydrological	Yes.
River Boyne and River Blackwater Special Area of Conservation (Site Code: 002299)	Alkaline fens [7230] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] Lampetra fluviatilis (River Lamprey) [1099] Salmo salar (Salmon) [1106] Lutra lutra (Otter) [1355]	Approximately 14km west	Potential ecological	Yes.

10.2.17. **Identification of Likely Effects:**

The Rye Water Valley / Carton SAC:

The construction phase of the proposed development will involve instream works, excavations & earthworks, and the disturbance of soil etc. which gives rise to the possibility of indirect negative impacts on downstream water quality through the accidental release of suspended solids / sediment etc. or the discharge of hydrocarbons and / or other pollutants by way of contaminated surface water runoff. In this regard, drains or watercourses can act as a hydrological conduit for contaminated surface waters between development sites and any downstream

Natura 2000 sites with any associated deterioration in water quality having a potentially negative impact on downstream aquatic habitats and / or species identified as qualifying interests / special conservation interests.

10.2.18. Given that the proposed development site is hydrologically linked to the Rye Water Valley / Carton SAC via those waterbodies crossed by the proposed development which subsequently flow into the Rye River and onwards to the SAC downstream of the application site, the potential arises for contamination released during the construction phase to enter the aquatic environment thereby resulting in a deterioration in downstream water quality. The nearest water crossing is WB13 (c. 8.15km from the SAC) and the HDD proposed at this location could potentially cause a pollution event resulting from oil and fuel spillages from the drilling rig operation; inadvertent drilling fluid returns (bentonite breakout); and drilling fluid disposal. A further 10 No. waterbody crossings are also hydrologically connected to the SAC and, therefore, surface sediment run-off during the construction phase could potentially enter these waterbodies and be transported to the SAC. Any such water pollution incidents could indirectly affect the SAC's qualifying habitats and species (please refer to Table 5.1 of the NIS, 2024):

- Petrifying springs have exacting water level and quality requirements and are therefore potentially susceptible to a water pollution/ hydrological incident.
- Desmoulin's whorl snail was recorded at the SAC in the 2014-2017 survey season (Long and Brophy, 2019) while narrow mouthed whorl was last recorded on the site in 1997 (NPWS, 2021b). Water pollution has the potential to significantly affect these snails. There is potential that the snail's food supply could become contaminated and inedible from pollution, thus potentially causing the snail to starve.

10.2.19. The River Boyne and River Blackwater SAC:

Otter is a qualifying interest of the River Boyne and River Blackwater SAC and otter signs (i.e. a potential otter holt and an otter slide) were recorded close to the proposed development. In this regard, it is to be noted that otter is a mobile species capable of commuting large distances through habitats such as drainage ditches and grassland.

10.2.20. The proposed development is located 14.2km southeast of the SAC at its closest point while a male otter's territory is 13.2 ± 5.3km (as derived from the National Otter Survey of Ireland 2010/12, published by the National Parks and Wildlife Service). Furthermore, the otters present adjacent to the River Liffey are in a different catchment to those in the SAC, and the otter signs are approximately 28km southeast of the SAC at its nearest point. Given that there are no other rivers designated for otters between the SAC and the proposed works, it is considered that the SAC is the core area for the species rather than in intervening rivers and tributaries. It is also considered that otters are more likely to remain in the River Boyne and River Blackwater SAC catchment than to migrate into Liffey catchment. Accordingly, the proposed development is not considered to have a likely significant effect on otters.

10.2.21. **Cumulative / In-combination Effects:**

From a review of the analysis set out in Table 6.1 of the screening report, it has been established that there is the potential for in-combination effects from the Meath County Development Plan, Kildare County Development Plan and the EirGrid Grid Implementation Plan. In terms of projects, it is considered that there is the potential for in-combination effects from: CP1021 Eirgrid, 22314564, 23794, 212217, 191288, 191296, 21365, R156 MCC Jenkinstown Road Improvement Scheme, NTA Leinster Orbital Route, NTA Emergency Diversion Route (M50) and Microsoft Jigginstown Data Centre.

10.2.22. **Mitigation Measures:**

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.

10.2.23. **Screening Determination:**

The proposed development was considered in light of the requirements of Section 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 have a significant effect on European Site No. 001398 in view of the sites' Conservation Objectives and Appropriate Assessment (and submission of a NIS) is therefore required.

10.2.24. **Stage 2: Appropriate Assessment:**

The subject application has been accompanied by a Natura Impact Statement (April, 2023) prepared by Jacobs Engineering Ireland Ltd while an updated Natura Impact Statement (February, 2024) was received by the Board on 13th March, 2024. These documents examine and assess potential adverse effects of the proposed development on the Rye Water Valley / Carton Special Area of Conservation.

10.2.25. The NIS are informed by a desk-top analysis of various source material as well as a series of field surveys.

10.2.26. The NIS includes a description of the project and the receiving environment and is stated to be based on standard methods and current best practice guidance, including '*Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities'* (DoEHLG, 2009) and EC (2018) '*Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC'*. It outlines the characteristics of the relevant designated sites before subsequently setting out the potential impacts arising from the construction and operation of the development on those European Sites. Details are also provided of those mitigation measures necessary to ensure that any direct or indirect impacts on the Natura 2000 sites are abated.

10.2.27. The NIS thus concludes as follows

> *'Based on the best available scientific information, it is considered that with the mitigation measures detailed above, there will be no adverse effects on the integrity of Rye Water Valley/Carton SAC, or any other European sites alone or in-combination with other plans or projects considering the site's conservation objectives. The NIS contains information which the competent authorities may consider in making its own complete, precise and definitive findings and conclusions and upon which it is capable of determining that all reasonable scientific doubt has been removed as to the effects of the Proposed Development, alone or in-combination with any other plan or project, on the integrity of the relevant European sites'.*

10.2.28. Having reviewed the documentation available to me, I am satisfied that the information allows for a complete assessment of any adverse effects of the

development on the conservation objectives of the European sites listed above, alone, or in combination with other plans and projects.

10.2.29. **Appropriate Assessment of Implications of Proposed Development:**

The following is a summary of the objective scientific assessment of the implications of the project on the qualifying interest features of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed.

10.2.30. I have relied on the following guidance as part of this assessment:

- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service (2009).
- EC (2002) Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC.
- Managing Natura 2000 sites, The provisions of Article 6 of the Habitats Directive 92/43/EEC, EC (2018).

10.2.31. **European Sites:**

The relevant European sites subject to Stage 2 Appropriate Assessment are as follows:

- The Rye Water Valley / Carton Special Area of Conservation (Site Code: 001398)

10.2.32. A description of the site and its Conservation and Qualifying Interests/Special Conservation Interests is set out in the Section 3: '*Baseline Characterisation'* of the NIS as well as the screening assessment set out above. I have also examined the Natura 2000 data forms where relevant and the Conservation Objectives supporting documents for these sites available through the NPWS website (www.npws.ie).

10.2.33. The main aspects of the proposed development that could adversely affect the conservation objectives of European sites include:

- Changes in water quality because of a pollution event from spillages, sedimentation / silt runoff and fuel / oil leaks entering watercourses during construction works impacting on Rye Water Valley / Carton SAC QI habitat Petrifying springs with tufa formation (Cratoneurion) [7220] and QI species, Narrow mouthed whorl snail (Vertigo angustior) [1014] and Desmoulin's whorl snail (Vertigo moulinsiana) [1016] screened in this European site.

10.2.34. **Evaluation of Likely Effects:**

Details of the Rye Water Valley / Carton Special Area of Conservation and its qualifying interests are set out in Table 4.4.1 (and Para Nos. 3.1.2.1 – 3.1.2.2) of the NIS (2024) with the pertinent conservation objectives (Section 5.1.3) aiming to maintain or restore the favourable conservation condition of the Annex I habitat(s) and / or Annex II species for which the SAC has been selected. Table 5.2 of the NIS subsequently details the potential for the proposed development to undermine the conservation objectives for the SAC by reference to the relevant attributes and targets.

10.2.35. *Petrifying Springs with Tufa Formation:*

Potential impact – potential for pollution event at watercourse crossings

Details of the two methods to be used for watercourse crossings are set out in Section 1.2.5.2 of the NIS (2024). In this regard, it has been submitted that due to the size of the cable and the nature of the excavation works required, there is the potential for a pollution event to be caused by either in-stream trenching releasing sediments or sediment laden run-off (which will subsequently flow via the watercourses into the Rye River and onwards to the SAC). In addition, at the HDD launch and reception sites, sediment is also likely to contain oils and chemicals from the drilling rig at Rye Water, WB13. There is potential for bentonite/drilling fluid breakout from the HDD drilling process to contaminate Rye Water at WB13.

10.2.36. The following three attributes of petrifying springs are considered to relate directly to water quality, which in the absence of mitigation, have the potential for adverse effects on the QI.

- Pollution of surface water is considered to have the potential to alter the spring's distribution as petrifying springs depend on permanent irrigation from

upwelling groundwater from natural processes. A pollution event would not be a 'natural process' and would temporarily affect its water availability through sediments potentially blocking or altering flow ground water flows.

- Pollution of surface water is considered to have the potential to alter the vegetation composition because the plants at the petrifying springs are highly specialised and therefore sensitive to water pollution.
- Pollution of surface water is considered to have the potential to cause a decline in distribution or population size of distinct flora and fauna due to its sensitivity to water quality.

10.2.37. *Narrow-Mouthed Whorl Snail:*

Potential impact – potential for pollution event at watercourse crossings

In instances where a watercourse drains to the Rye Water, in the absence of mitigation there is the potential for pollutants (e.g., oil and fuel spillage, drilling fluid) to be transported to Rye Water Valley/Carton SAC.

10.2.38. Using the precautionary principle, the Narrow-Mouthed Whorl Snail is assumed to be present within the same 1km as when last recorded at Rye Water Valley/Carton SAC in 1997. The following three attributes of narrow-mouthed whorl snail i.e., distribution, occurrence in suitable habitat, and habitat area relate directly to water quality and are considered, in the absence of mitigation, to potentially be subject to adverse effects as a result of the proposed development.

- Pollution of surface water is considered to have the potential to alter distribution of this species because it feeds on bacterial films and decaying vegetation in moss, leaves, and decaying vegetation. Pollution of these food sources by surface water could affect the snail's ability to feed.
- Pollution of surface water is considered to have the potential to affect the occurrence of this species because the snail's food supply could become contaminated and inedible, thus causing the snail to starve.
- Pollution of surface water is considered to have the potential to affect the habitat area suitable for this species by contaminating the area supporting it.

10.2.39. *Desmoulin's Whorl Snail:*

Potential impact – potential for pollution event at watercourse crossings

For the same reasons as presented for petrifying springs, where a watercourse connects to the Rye Water, in the absence of mitigation there is potential for pollutants (e.g., oil and fuel spillage, drilling fluid) to be transported to the SAC since Rye Water flows through it.

10.2.40. Four attributes of Desmoulin's Whorl Snail i.e., distribution, occurrence in suitable habitat, density within habitat and habitat area are considered to relate directly to water quality and are considered, in the absence of mitigation, to have potential to have adverse effects on this QI.

- Pollution of surface water is considered to have the potential to alter distribution of this species because it feeds on bacterial films and decaying vegetation in moss, leaves, and decaying vegetation. Pollution of these food sources by surface water could affect the snail's ability to feed.
- Pollution of surface water is considered to have the potential to affect the occurrence of this species because the snail's food supply could become contaminated and inedible, thus potentially causing the snail to starve.
- Pollution of surface water is considered to have the potential to affect the density of the species within the habitat by contaminating the area supporting it and affecting its ability to feed and breed.

10.2.41. **Proposed Mitigation Measures:**

On balance, I would accept that the implementation of best practice and adherence to the mitigation measures set out in Section 6 of the NIS will serve to avoid any impacts on down-gradient water quality as well as the disturbance of habitats and / or species of qualifying interest thereby ensuring that there are no significant adverse effects on protected sites or species within Natura 2000 sites.

10.2.42. **Cumulative and In-Combination Effects:**

Cumulative / in-combination effects have been considered in Table 7.1 of the submitted NIS (2024).

10.2.43. With the implementation of the mitigation measures proposed, I am satisfied that the proposed development would not be likely to give rise to any in-combination / cumulative impacts with other plans or projects which would adversely affect the

integrity of any Natura 2000 site and would not undermine or conflict with the Conservation Objectives applicable to same.

10.2.44. **Integrity Test:**

Following the Appropriate Assessment and the consideration of mitigation measures, I can ascertain with confidence that the project would not adversely affect the integrity of the Rye Water Valley / Carton Special Area of Conservation (Site Code: 001398) in view of the Conservation Objectives of this site. This conclusion has been based on a complete assessment of all implications of the project alone and in combination with plans and projects.

10.2.45. **Appropriate Assessment Conclusion:**

The proposed development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act, 2000, as amended.

10.2.46. Having carried out screening for Appropriate Assessment of the project, it was concluded that it may have a significant effect on 1 No. European Site i.e. the Rye Water Valley / Carton Special Area of Conservation. Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of this European site in light of its conservation objectives.

10.2.47. Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of the Rye Water Valley / Carton Special Area of Conservation, or any other European site, in view of the site's Conservation Objectives.

10.2.48. This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project including proposed mitigation measures and ecological monitoring in relation to the Conservation Objectives of the aforementioned designated sites.
- Detailed assessment of in-combination effects with other plans and projects including historical projects, current proposals, and future plans.
- No reasonable scientific doubt as to the absence of adverse effects on the integrity of the Rye Water Valley / Carton Special Area of Conservation.

11.0 **Recommendation**

On the basis of the above assessment, I recommend that the Board should approve the proposed development for the reasons and considerations set out below.

Reasons and Considerations

In coming to its decision, the Board made its decision consistent with:

- The Climate Action and Low Carbon Development Act, 2015 as amended, and
- The Climate Action Plan, 2024

The Board also had regard to the following:

a) the nature, scale and extent of the proposed development,

b) the characteristics of the site and surrounding area,

c) the national targets for renewable energy,

d) European, national, regional and county level support for renewable energy development and electricity grid infrastructure such as:

- The European Green Deal, 2020
- RED III (European Renewable Energy Directive (EU/2023/2413))
- EU Action Plan on Grids, 2023
- Consistency with the Climate Action Plan, 2024
- Project Ireland 2040: National Planning Framework,
- National Development Plan, 2021-2030
- Policy Statement on Security of Electricity Supply, November 2021 (Government of Ireland):
- Energy Security in Ireland to 2030: Energy Security Package, November, 2023
- National Adaptation Framework, 2018
- National Energy and Climate Plan for Ireland, 2021-2030
- National Biodiversity Action Plan 2023-2030

- Regional Spatial and Economic Strategy for the Eastern & Midland Region (RSES), 2019-2031
- Meath County Development Plan, 2021-2027
- Kildare County Development Plan, 2023-2029
- Naas Local Area Plan, 2021-2027

e) the documentation submitted with the application, including the Planning Report, Planning and Environmental Considerations Report, Environmental Impact Assessment Report, Appropriate Assessment Screening Reports, and the Natura Impact Statements,

f) the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on European Sites,

g) the planning history of the immediate area,

h) the distance to dwellings or other sensitive receptors from the proposed development,

i) the submissions on file including those from observers, prescribed bodies and the Planning Authorities,

j) mitigation measures proposed for construction and operation of the site, and

k) the report of the Inspector.

Appropriate Assessment: Stage 1

The Board agreed with and adopted the screening assessment and conclusions carried out in the Inspector's report that the only European site in respect of which the proposed development has the potential to have a significant effect is the Rye Water Valley / Carton Special Area of Conservation (Site Code: 001398).

Appropriate Assessment: Stage 2:

The Board considered the Natura Impact Statement, and other associated documentation submitted with the application, the mitigation measures contained

therein, the submissions and observations on file and the Inspector's assessment. The Board completed an appropriate assessment of the implications of the proposed development on the aforementioned European Site in view of the site's conservation objectives. The Board considered that the information before it was adequate to allow the carrying out of an appropriate assessment. In completing the appropriate assessment, the Board considered, in particular, the following:

a) the likely direct and indirect impacts arising from the proposed development, both individually, when taken together and in combination with other plans or projects,

b) the mitigation measures, which are included as part of the current proposal, and

c) the conservation objectives for the European sites.

In completing the appropriate assessment, the Board accepted and adopted the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European site, having regard to the site's conservation objectives. In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Site, in view of the site's conservation objectives.

Environmental Impact Assessment:

The Board completed an environmental impact assessment of the proposed development, taking into account:

a) the nature, scale and extent of the proposed development,

b) the Environmental Impact Assessment Report and other associated documentation submitted in support of the application,

c) the screening for appropriate assessment and associated documentation submitted in support of the application,

d) the submissions from the planning authorities, the observers and prescribed bodies in the course of the application, and

e) 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, residual and cumulative effects of the proposed development on the environment. The Board agreed with the examination, as 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.

Reasoned Conclusion and Significant Effects

The Board considered that the main significant direct and indirect effects of the proposed development on the environment are, and would be mitigated as follows:

- A 'Short to Medium' term 'Significant' residual effect at 'Local-County' scale on **Biodiversity** from the loss of hedgerows and treelines (WD1, WL1 and WL2) until new species rich hedgerows and treelines are established.
- A 'Permanent' 'Significant' residual effect estimated at 'County' significance on **Biodiversity** from the loss of mature trees as trees cannot be compensated with replacement planting due to the time taken for trees to reach maturation.
- A 'Short to Medium' term 'Significant' residual effect at 'Local' level on **Biodiversity** from the loss of dry meadow and grassy verge (GS2) until new grassland and meadows can establish. There are no compensation options available for wet grasslands (GS4).
- A temporary adverse impact on **Material Assets** due to the temporary significant disruption to the garden area of a residential property on the R125 Regional Road (at approximate chainage 11200) during the construction phase of the development, which will be mitigated in part through the use of screens for the duration of construction at this location in order to allow the affected owner use of their garden.
- In conjunction with the East Meath – North Dublin EirGrid Project and the Woodland Substation Redevelopment Project, a 'Positive', 'Significant' and

‘Long-Term’ **Cumulative Impact** on the regional electricity network when these developments and the subject development are operational.

- In conjunction with the East Meath – North Dublin Project, a significant **Cumulative Impact** after the application of mitigation measures arising from the broader loss of hedgerows and treeline habitats.

Notwithstanding, the conclusions reached in respect of the inability of the proposed measures to fully mitigate the aforementioned impacts, it is considered that the environmental effects would not justify a refusal of planning permission having regard to the overall benefits of the proposed development.

The Board completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures proposed, and subject to compliance with the conditions set out below, the effects of the proposed development on the environment, both by itself and in combination with other plans and projects in the vicinity, would be acceptable. In doing so, the Board adopted the report and conclusions 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 be in accordance with European, national, regional and local planning and related policy, would be consistent with the provision of the Climate Action Plan 2024 and would make a significant positive contribution towards Ireland’s renewable energy and security of energy supply requirements. Furthermore, the proposed development would not seriously injure the visual and residential amenities of the area, nor have an unacceptable impact on the character of the landscape or archaeological heritage, would not have a unacceptable impact on ecology, and would be acceptable in terms of traffic safety. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

CONDITIONS

1. The proposed development shall be carried out in accordance with the plans and particulars lodged with the application, as amended by the further plans and particulars submitted on the 13th day of March, 2024, 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 undertaker 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 interests of clarity.

2. The mitigation measures contained in the submitted Natura Impact Statement shall be implemented in full.

   Reason: To protect the integrity of European Sites.

3. All of the environmental, construction and ecological mitigation measures, as set out in the Environmental Impact Assessment Report, Planning and Environmental Considerations Report, and Construction and Environmental Management Plan, and other particulars submitted with the application, shall be implemented 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 Order.

   Reason: In the interests of clarity and of the protection of the environment during the construction and operational phases of the development.

4. The horizontal and vertical alignment of the proposed electricity infrastructure shall be agreed and co-ordinated with statutory undertakers / landowners to avoid conflicts prior to commencement of development. The final route of the proposed cable shall be notified to the planning authorities for written agreement prior to commencement of any construction works on site.

   Reason: In the interests of clarity.

5. Water supply and drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authorities for such works in respect of both the construction and operation phases of the proposed development.

Reason: In the interest of environmental protection and public health.

6. The undertaker shall comply with the transportation requirements of the planning authorities and other relevant bodies for such works and services as appropriate. Such requirements shall require provision of a detailed Traffic Management Plan and shall include the following details:

   a) Consultation with Transport Infrastructure Ireland and all private and public companies and road authorities.

   b) Details of haulage routes, control measures for abnormally sized vehicles and an Abnormal Load Assessment.

   c) A road condition survey of roads and bridges along the haul route to be carried out at the undertaker's expense and to the satisfaction of the planning authorities.

   d) Detailed arrangements for construction damage to be made good by the undertaker to the satisfaction of the planning authorities.

   e) Detailed arrangements for temporary traffic management/controls, and protocols to keep residents informed,

   f) Construction Route Signage,

   g) Road Opening Licences that will be required,

   h) Arrangements for the phasing of the development,

   i) Detailed design of the site entrances with provision of sightlines to the satisfaction of the planning authorities and recessed entrance gate.

   Reason: In the interest of traffic and pedestrian safety.

7. All road surfaces, culverts, watercourses, verges, and public lands shall be protected during construction and, in the case of any damage occurring, shall be reinstated to the satisfaction of the planning authorities at the undertaker's expense. Prior to commencement of development, a road condition survey shall be carried out to provide a basis for reinstatement works. Details in this regard shall be submitted to, and agreed in writing with, the planning authorities prior to commencement of development.

   Reason: In order to protect the road network.

8. The undertaker shall appoint a suitably qualified ecologist to monitor and ensure that all avoidance/mitigation measures relating to the protection of flora and fauna are carried out in accordance with best ecological practice and to liaise with consultants, the site contractor, the National Parks and Wildlife Service and Inland Fisheries Ireland. The ecologist shall advise the applicant in relation to habitat management and protection and oversee the works on site associated with hedgerow removal, drain diversion and the provision of new planting, including hedgerow. Planting locations, species, timescale, replacement & compensatory planting shall be detailed, together with options for agreeing measures which accord with the Local Biodiversity Action Plans for Meath and Kildare Local Authorities and the All-Ireland Pollinator Plan. A report on the implementation of these measures shall be submitted to the planning authorities and retained on file as a matter of public record.

   Reason: To protect the environmental and natural heritage of the area.

9. Prior to commencement of development, a detailed Construction and Environmental Management Plan for the construction phase shall be submitted to and agreed in writing with the planning authorities, generally in accordance with the Construction and Environmental Management Plan appended to the Environmental Impact Assessment Report submitted with the application. The Construction and Environmental Management Plan shall incorporate the following:

   a) a detailed plan for the construction phase incorporating, inter alia, construction programme, supervisory measures, noise, dust and surface water management measures including appointment of a site noise & vibration 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 application and supporting documentation during the construction period;

   c) an Invasive Species Eradication and Management Strategy for the site, to include monitoring post completion of works;

   d) an emergency response plan; and

e) proposals in relation to public information and communication. A record of daily checks that the works are being undertaken in accordance with the Construction and Environmental Management Plan shall be kept for inspection by the planning authorities.

Reason: In the interest of environmental protection and orderly development.

10. The undertaker shall engage a suitably qualified archaeologist (licensed under the National Monuments Acts) to carry out pre-development archaeological testing in areas of proposed ground disturbance and to submit an archaeological impact assessment report for the written agreement of the planning authorities, following consultation with the National Monuments Service, in advance of any site preparation works or groundworks, including site investigation works / topsoil stripping / site clearance / dredging / underwater works and/or construction works. The report shall include an archaeological impact statement and mitigation strategy. Where archaeological material is shown to be present, avoidance, preservation in-situ, preservation by record [archaeological excavation] and/or monitoring may be required. Any further archaeological mitigation requirements specified by the planning authorities, following consultation with the National Monuments Service, shall be complied with by the undertaker. No site preparation and/or construction works shall be carried out on site until the archaeologist's report has been submitted to and approval to proceed is agreed in writing with the planning authorities. The planning authorities and the National Monuments Service shall be furnished with a final archaeological report describing the results of any subsequent archaeological investigative works and/or monitoring following the completion of all archaeological work on site and the completion of any necessary post-excavation work. All resulting and associated archaeological costs shall be borne by the undertaker.

    Reason: To ensure the continued preservation, either in situ or by record, of places, caves, sites, features or other objects of archaeological interest.

11. The Construction and Environmental Management Plan shall include the location of any and all archaeological or cultural heritage constraints relevant to the proposed development as appropriate following consultation with the

National Monuments Service. The Construction and Environmental Management Plan shall clearly describe all identified likely archaeological impacts, both direct and indirect, and all mitigation measures to be employed to protect the archaeological or cultural heritage environment during all phases of site preparation and construction activity.

Reason: To ensure the continued preservation, either in situ or by record, of places, caves, sites, features or other objects of archaeological interest.

12. Site development and building works shall be carried out only between the hours of 0800 to 1900 Mondays to Fridays inclusive, between 0800 to 1300 hours on Saturdays and not at all on Sundays or public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the planning authorities.

    Reason: In order to safeguard the amenities of property in the vicinity.

13. Prior to commencement of development, the undertaker shall lodge with the planning authorities a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authorities, to secure the satisfactory reinstatement of the site upon cessation of the project coupled with an agreement empowering the planning authorities to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authorities and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

    Reason: To ensure satisfactory reinstatement of the site.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Robert Speer
Senior Planning Inspector

7th February, 2025

Appendix 1 - Form 1

EIA Pre-Screening

[EIAR not submitted]

An Bord Pleanála Case Reference	ABP-316372-23
Proposed Development Summary	'Kildare – Meath Grid Upgrade' – Proposed development of a 400kV underground cable between the existing Dunstown 400kV substation in Co. Kildare and the existing Woodland 400kV substation in Co. Meath.
Development Address	Co. Kildare & Co. Meath.

1. Does the proposed development come within the definition of a 'project' for the purposes of EIA? (that is involving construction works, demolition, or interventions in the natural surroundings)		
	Yes	✓
	No	No further action required

2. Is the proposed development of a class specified in Part 1 or Part 2, Schedule 5, Planning and Development Regulations 2001 (as amended) and does it equal or exceed any relevant quantity, area or limit where specified for that class?

Yes	✓	Class 1(a) of Schedule 5, Part 2, of the Regulations: - Projects for the restructuring of rural land holdings, undertaken as part of a wider proposed development, and not as an agricultural activity that must comply with the European Communities (Environmental Impact Assessment) (Agriculture) Regulations 2011, where the length of field boundary to be removed is above 4 kilometres, or where re-contouring is above 5 hectares, or where the area of lands to be restructured by removal of field boundaries is above 50 hectares.	EIA Mandatory EIAR required
No			Proceed to Q.3

3. Is the proposed development of a class specified in Part 2, Schedule 5, Planning and Development Regulations 2001 (as amended) but does not equal or exceed a relevant quantity, area or other limit specified [sub-threshold development]?

		Threshold	**Comment (if relevant)**	**Conclusion**
No		N/A		No EIAR or Preliminary Examination required

Yes		Class/Threshold…..		Proceed to Q.4

4. Has Schedule 7A information been submitted?		
No		**Preliminary Examination required**
Yes		**Screening Determination required**

Inspector: Robert Speer Date: 7th February, 2025