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Environmental Report

Peamount Substation and Transmission Lines at Milltown, Newcastle, Co. Dublin

CLIENT

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Services Limited

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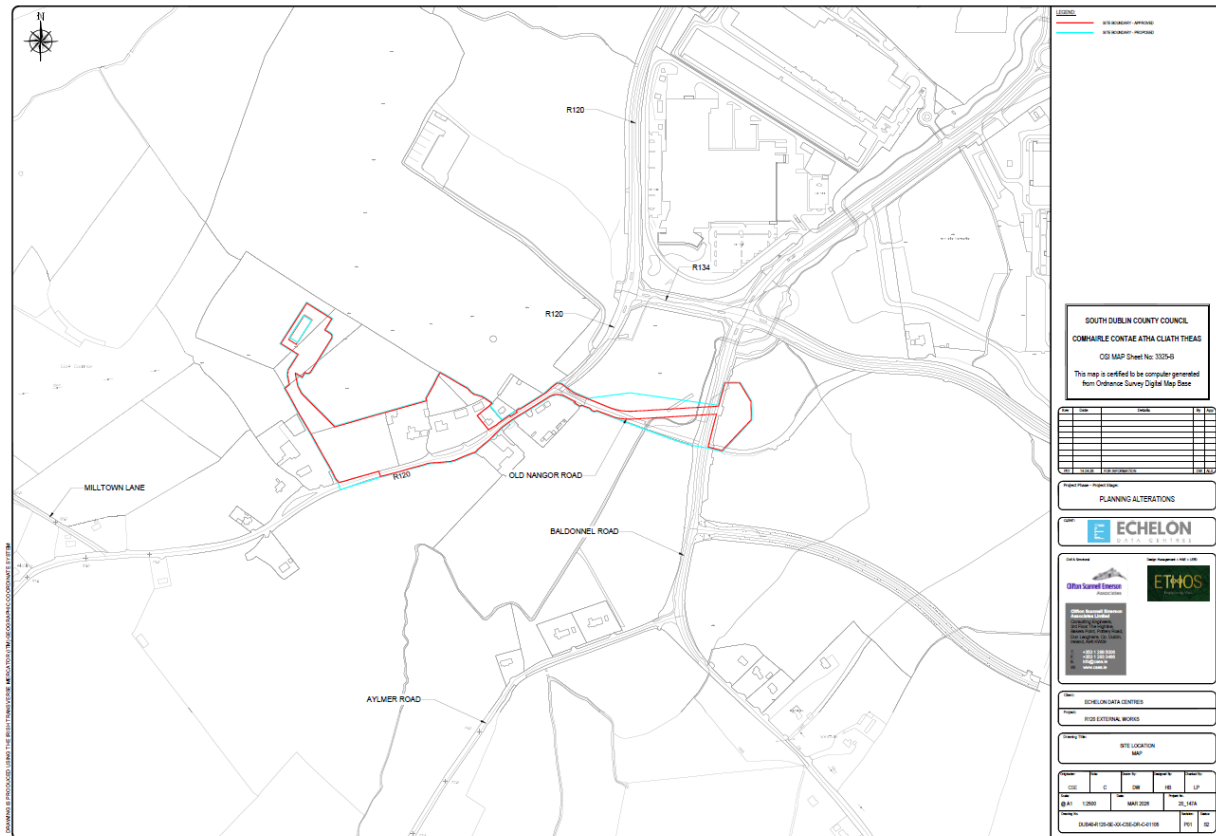
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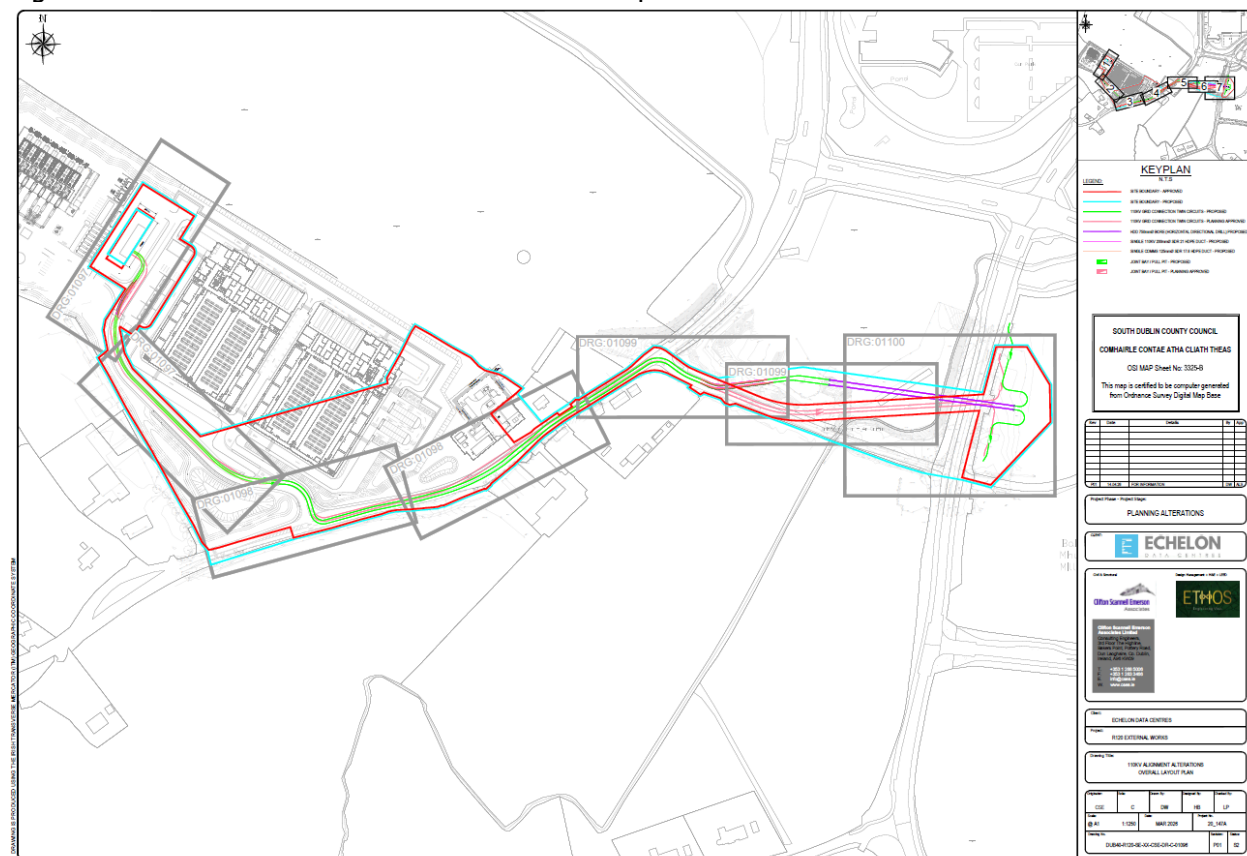


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1. INTRODUCTION

This Environmental Report (ER) has been prepared to describe and assess proposed alterations to the previously Permitted Development for the provision of two no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation compound and Transformers/ MV switch room compound along with associated and ancillary works on an overall site of c. 4.6 hectares.

The proposed changes comprise alterations to the alignment of two 110kV underground transmission lines, Circuit 01 Left and Circuit 02 Right, between the GIS Substation, located centrally within the DUB40 site (permitted under SD20A/0058), and the proposed connection to the existing 110 kV circuits within the open field northeast of the Baldonnell Road / Old Nangor Road intersection.

The ER should be read and understood in conjunction with the full application pack, including:

- ▶ Section 146b Design Amendments Summary Technical Note (Doc. Ref: 20_147AMEMO-20_147A-002) prepared by Clifton Scannell Emerson Associates (CSEA, 2026);
- ▶ Ecological Technical Note – Ecological Verification Survey at Grange Castle West, Milltown, Co. Dublin prepared by Scott Cawley (2026);
- ▶ Appropriate Assessment Screening Report for Amendments to Previously Consented Electricity Transmission Development at Grange Castle West, Milltown, Co. Dublin prepared by Scott Cawley (2026);
- ▶ Outline Construction Environmental Management Plan (CEMP) prepared by J.B Barry & Partners (Consulting Engineers) dated February 2021 (hereinafter referred to as “the CEMP); and
- ▶ Site Specific Flood Risk Assessment (SFRA) prepared by J.B Barry & Partners dated February 2021; and
- ▶ The original Environmental Impact Assessment Report (EIAR) Peamount Substation and Transmission Lines submitted with ABP-309773-21 prepared by Marston Planning Consultancy Ltd. et. al. dated March 2021 (hereinafter referred to as “the EIAR”);
- ▶

1.1 Purpose, Scope and Methodology

This ER considers the Proposed Development in comparison with the permitted alignment, documents the associated design changes, and assesses whether these changes are likely to result in any additional environmental impacts beyond those identified in the EIAR.

The ER evaluates the likelihood of any significant effects on the existing environment arising from the proposed changes. Each environmental factor has been assessed by suitably qualified experts, with consideration given to both the construction and operational phases of the development.

The conclusions relating to residual impacts, as set out in this ER, remain consistent with the original findings of the EIAR. The quality, magnitude and duration of potential effects have been defined in accordance with the criteria outlined in the EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2022).

2. PROJECT DESCRIPTION

2.1 Original Submission

The original EIAR assessed the Permitted Development, which comprises two underground single-circuit 110 kV transmission lines connecting the proposed Peamount 110 kV GIS Substation to the existing Castlebaggot–Kilmahud circuit to the east (planning ref. ABP-309773-21). The transmission line route extends for approximately 940 m within the townlands of Milltown and Clutterland and is illustrated on the original proposed site layout shown in Figure 2-1 below (Figure 1.1 of the EIAR).

Outside of the wider substation site, the permitted transmission line alignment is located on lands under the control or ownership of South Dublin County Council (SDCC), including the R120 (Peamount Road), the former R134 (Nangor Road), areas of greenfield land, and Baldonnel Road. Letters of consent from SDCC were included as part of the original planning application documentation.

As described in the EIAR for the Permitted Development, the route follows the permitted internal access road to the Primary Grid Facility (granted under SDCC Reg. Ref. SD20A/0058) within the DUB40 site. From this point, the transmission line passes beneath the R120 for approximately 300 m in a north-easterly direction to its junction with the former Nangor Road, which is now cut off at either end. The alignment then continues beneath approximately 100 m of the former Nangor Road before diverting across SDCC-owned lands.

The permitted route subsequently passes beneath the culverted Griffeen River over a distance of approximately 150 m and continues beneath the newly realigned Baldonnel Road before connecting to the existing Castlebaggot–Kilmahud circuit. Horizontal Directional Drilling (HDD) beneath the Griffeen River and Baldonnel Road is required for the installation of the two transmission cables. The EIAR also assessed the provision of joint bays at the connection to the Castlebaggot–Kilmahud circuit and at locations along the route, as required.

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The Technical Note *Section 146b Design Amendments Summary (CSEA, 2026)* outlines the proposed alterations and these proposed changes are illustrated in drawing from CSEA Consulting Engineers, inserted as Figure 2-2 and Figure 2-3 below.

The proposed amendments to the underground circuits are largely due to existing and proposed services co-ordination within the Dub40 access road and the R120, with the realignment of the HDD crossing under the Griffeen River and Baldonnell Road due to the presence of deep services within Baldonnell Road that need to be avoided. While these changes result in a slight increase in the overall length of the proposed circuits, the length of HDD has decreased.

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The proposed Circuit 01 Left largely follows the permitted alignment from the permitted GIS Substation (CH L 00) traversing southeast through the Dub40 site access road, continuing northeast along the R120 (Peamount Road) and continuing southeast along Old Nangor Road (CH L 670), with minor amendments to the alignment to avoid existing and proposed services within the Dub40 access road and R120 (Peamount Road). The proposed alignment then veers north of the permitted alignment and crosses under the Griffeen River and Baldonnell Road via HDD (CH L 775 to CH L 920) before performing a 1800 'U-bend' and rejoining the permitted alignment at CH L 975.

The proposed Circuit 02 Right alterations largely mirror the proposed changes to Circuit 01 Left, with minor amendments to the alignment along the Dub40 site access road and the R120 (Peamount Road) before veering north of the permitted alignment at CH R 675 and crossing under the Griffeen River and Baldonnell Road via HDD before performing a 1800 'U-bend' and rejoining the permitted alignment at CH R 965.

Table 2-1 below summarises the proposed alterations, referencing both the permitted and proposed layouts.

Table 2-1 Permitted Vs. Proposed Circuit Lengths

Description	Permitted	Proposed
Circuit 01 Left length	946m	991m
Circuit 02 Right length	938m	977m
HDD Circuit 01 Left Crossing length	168m	143m
HDD Circuit 02 Right Crossing length	168m	143m
Joint Bays Circuit 01 Left	3 No.	3 No.
Joint Bays Circuit 02 Right	3 No.	3 No.

The proposed amendments to the permitted GIS Substation comprise of the following:

- ▶ An overall footprint change from 48.1m x 14.88m to 43m x 15.88m
- ▶ Building height increase from 14.942m to 16.7m to match current Eirgrid requirements
- ▶ A change to the building façade to have a monotone colour for the building
- ▶ Addition of external stairs from the first floor for fire escape and Part B compliance
- ▶ Minor adjustments to doors, vents and general finish
- ▶ Updates to the general substation internal layout and details to match current Eirgrid requirements
- ▶ Adjustment of the palisade fence and footprint to match current Eirgrid requirements and inclusion of a perimeter concrete post and rail fence on 4 sides
- ▶ General updates to ducting
- ▶ Inclusion of lighting poles, interface kiosks and rural supply indicated on layouts

Other than the proposed changes described above and the associated updated redline boundary, no further changes are proposed. All construction methodologies (including HDD techniques), construction materials, and the construction programme previously assessed remain as envisaged and unchanged. The revised alignment, together with the updated redline boundary, is detailed within the accompanying technical note (*Section 146b Design Amendments Summary, CSEA, 2026*).

² Source: Drawing no. DUB40-R120-SE-XX-CSE-DR-C-01105-01105, CSEA Consulting Engineers 2026

³ Source: Drawing no. DUB40-R120-SE-XX-CSE-DR-C-01096-01096, CSEA Consulting Engineers 2026

3. EXISTING ENVIRONMENT

The latest Google Maps image of the surrounding environment is shown in Figure 3-1 below and reflects the modifications within the wider area due to recent and ongoing development. The Site is bounded by Grange Castle West Business Park (SDCC lands) to the north and east, which is currently being developed, to the south by Peamount Road (R120) and agricultural lands, and to the west by an existing haulage business. In the surrounding area, Grange Castle Business Park to the east and southeast has been developed over the past 20 years, including pharmaceutical, data centre and food manufacturing uses.

Within the northern part of the Permitted Development, planning permission has been granted for a power generation facility (energy centre) (Reg. Ref.: SD20A/0058). Also within the Permitted Development site, planning permission (Reg. Ref.: SD25A/0135W has been granted for the relocation of a previously permitted (under Reg. Ref.: SD20A/0058) Above Ground Installation (AGI) compound, provision of a Pressure Reduction Metering System (PRMS) and a foul pumping station in the southeast of the Site.

The Permitted Development site, previously greenfield, is now under development. Two residential properties were located in the southeast of the Site, however no buildings remain on-site, as previous residential dwellings were demolished under the current planning permission.

The baseline conditions for soils, subsoils, geology, aquifer classification and vulnerability remain unchanged from those detailed in Chapter 7 (Land, Soils, Geology and Hydrogeology) of the EIAR. Similarly, the hydrological environment remains largely consistent with the EIAR assessment (Chapter 8 - Hydrology).

In hydrological terms, the Proposed Development site lies within Hydrometric Area No. 09 of the Irish River Network, specifically within the River Liffey Catchment. The Proposed Development site is located within the sub-catchment of the River Griffeen, Lucan Stream and Baldonnel Stream (shown on Figure 3-2 below), all of which are tributaries of the River Liffey. The River Griffeen flows in a north-easterly direction before outfalling into the River Liffey approximately 4.3 km north of the Permitted Development, while the Lucan Stream is located approximately 408 m north-west of the site.

As per EPA Maps (2026), the River Griffeen is classified as having *Poor* water quality status. The ecological status of the Lucan Stream is *Moderate*, with a Water Framework Directive (WFD) water quality status of *Good*, and the River Liffey is classified as having *Moderate* water quality status. The remainder of the hydrological environment remains consistent with that described in Chapter 8 (Hydrology) of the EIAR.

The Proposed Development does not intersect with any new natural watercourses, and stormwater infrastructure within the roadbed will be avoided during construction. However, the site of the Proposed Development intersects with the River Griffeen (refer to Figure 3-2 below), beneath which the transmission lines will be installed using HDD methodologies.

With reference to the Ecological Technical Note (Scott Cawley, 2026) the Proposed Development area comprises modified and semi-natural habitats associated with the Permitted Development and its immediate environs. Habitat types within the Proposed Development include dry meadows and grassy verges (GS2), amenity grassland (GA2), immature woodland (WS2), and buildings and artificial surfaces (BL3), with treeline (WL2) habitat present along Peamount Road. These habitats are widely distributed in the local area and do not comprise rare or protected habitat types. The existing biodiversity conditions within the Proposed Development area are consistent with those described in Chapter 6 (Biodiversity) of the EIAR.

The EIAR identified sensitive receptors, such as residential properties, that may be impacted by noise or dust within the Permitted Development site boundary. There is no change to the sensitive receptors identified in Chapter 10 (Air Quality and Climate) and Chapter 9 (Noise and Vibration) of the EIAR.

Figure 3-1 Google Maps Image of Surrounding Environment (showing Proposed Development boundary)

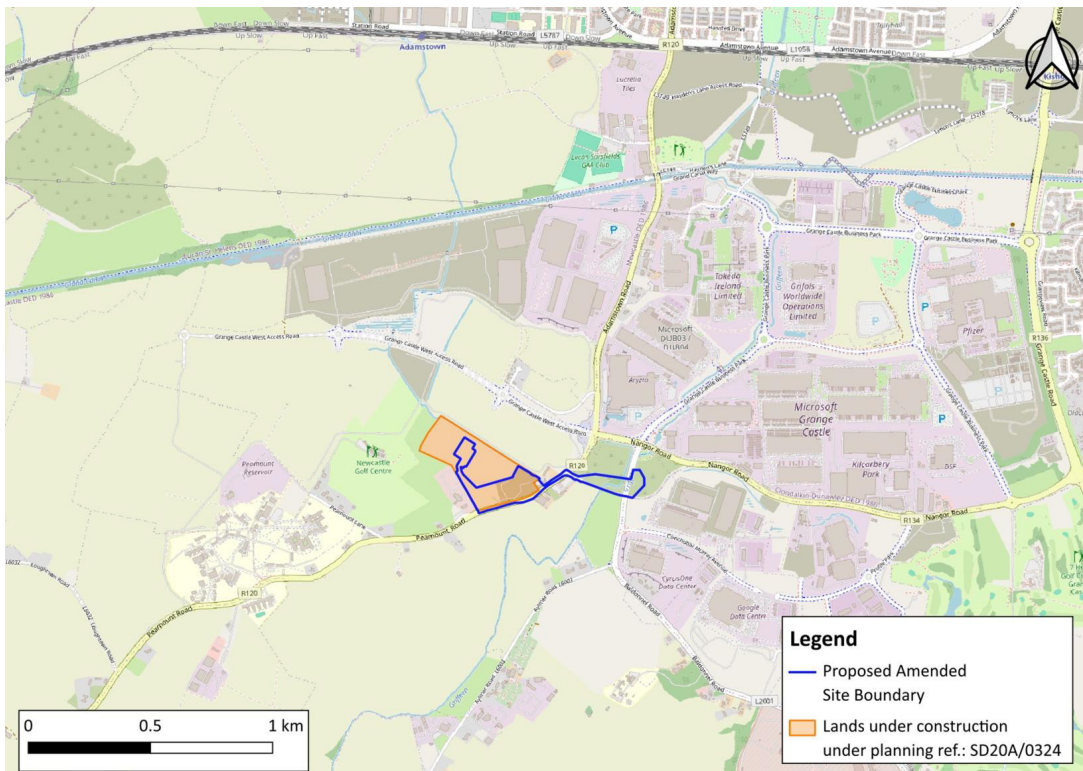
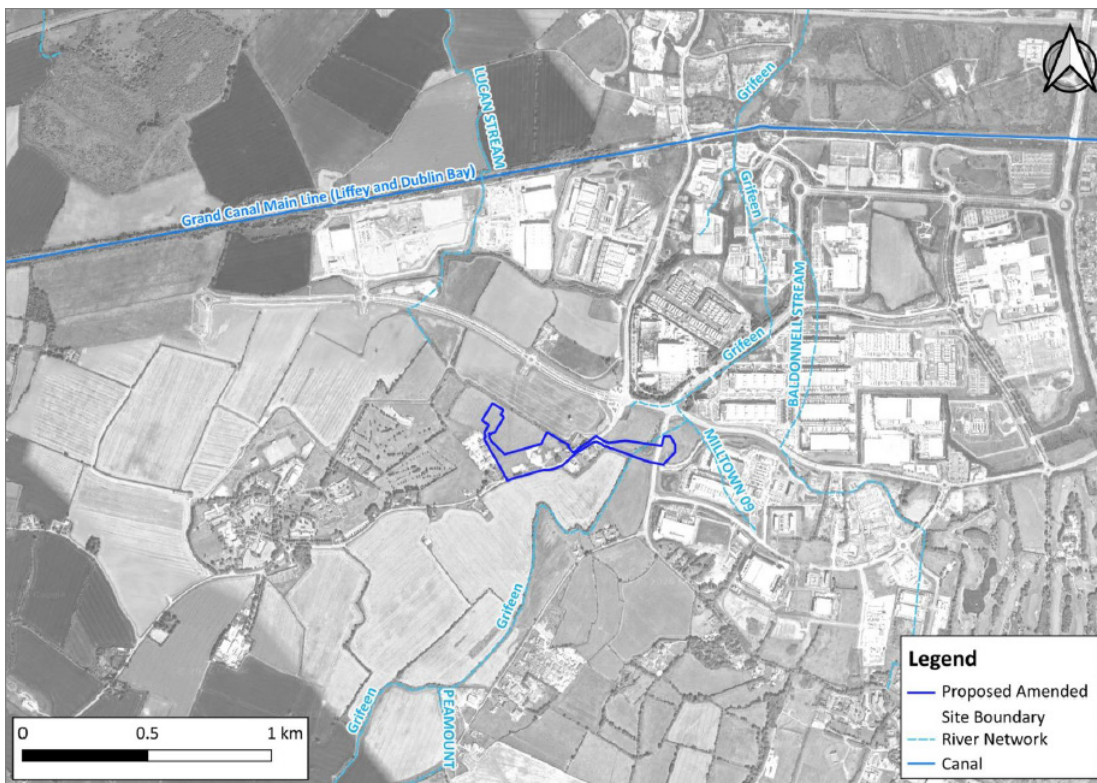


Figure 3-2 Watercourses in the vicinity of the Permitted Development⁴



⁴ Source: Appropriate Assessment Screening Report for Amendments to Previously Consented Electricity Transmission Development at Grange Castle West, Milltown, Co. Dublin (Scott Cawley, 2026)

4. APPRAISAL OF ENVIRONMENTAL IMPACTS

The construction methodology remains unchanged from that outlined in the EIAR for the Permitted Development, with all previously envisaged methodologies, and materials being maintained. The proposed alterations comprise the realignment of two 110 kV underground transmission lines (Circuit 01 Left and Circuit 02 Right), minor amendments to the GIS Substation, and an associated increase in the red line boundary. No other changes are proposed.

All previously envisaged construction methodologies and materials will remain unchanged. The construction activities will continue to comply with monitoring and management requirements outlined in the outline Construction Environmental Management Plan (oCEMP) submitted for the Permitted Development.

The oCEMP outlines construction phase mitigation and management of air quality control (dust), noise, surface water runoff, traffic (deliveries), and spills and leaks that will be undertaken during the construction phase. Implementation of the CEMP at the Site will continue for the duration of the construction works. The CEMP is a working document.

Due to the underground characteristics of the underground transmission lines, and no change to the operational maintenance requirements, there is no material change to the functionality of the Proposed Development once operational. As a result, the operational phase mitigation measures and residual impacts remain consistent with those outlined in the EIAR.

This ER has therefore scoped the operational phase out of detailed assessment, as it remains unchanged from the EIAR for the Permitted Development. This report focuses solely on the environmental effects during the construction stage.

4.1 Population and Human Health

As set out in EIAR Chapter 5 (Population and Human Health), the assessment of the Permitted Development identified the potential for temporary impacts during construction, primarily associated with dust soiling and noise generation. These impacts will be minor and will not materially affect the underground transmission circuit location, nor will they affect the proximity of the proposed works to sensitive receptors.

The realignment of the two 110 kV underground transmission circuits does not alter the nature or scale of construction activities previously assessed. The works remain temporary and localised in nature, comprising trenching, horizontal directional drilling (HDD), and associated construction activities. While there are minor changes to the alignment, including a revised HDD crossing beneath the Griffen River and Baldonnell Road and slight increases in overall circuit length, as well as limited amendments within the GIS Substation, there is no material change in the proximity of works to sensitive receptors or in the duration or intensity of construction activities.

Potential impacts to population and human health arising from the Proposed Development will therefore remain consistent with those identified in the EIAR.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 5 (population or human health). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on population or human health. The residual effects remain **short-term** in duration, and **not significant**, consistent with the findings of EIAR Chapter 5.

During the operational phase, the GIS Substation will operate remotely, with only periodic inspection and maintenance activities required. These activities are infrequent and do not give rise to significant

emissions, noise or traffic movements. The underground transmission lines do not result in operational emissions or effects on human receptors.

4.2 Land, Soils, Geology and Hydrogeology

As set out in the EIAR Chapter 7 (Land, Soils, Geology and Hydrogeology) the EIAR anticipated the potential for the underlying groundwater to become contaminated with pollutants associated with construction activity.

The Proposed Development, including the realignment of the underground transmission lines and minor amendments to the GIS Substation, does not materially alter the nature, scale or extent of excavation works previously assessed. There is no increase in the overall quantity of excavated material associated with the Proposed Development relative to the Permitted Development.

To avoid potential contamination, all construction activities will adhere to the best practice measures outlined in the oCEMP for the Permitted Development. These include the use of appropriate spill prevention measures, the containment of excavated materials, and the management of any temporary stockpiles to prevent erosion or sedimentation. Excavated materials will be carefully segregated, stored, and reinstated to maintain the original ground profile. At the completion of works, the ground profile will be fully restored to its original condition, ensuring there are no long-term impacts.

The best practice measures outlined in the oCEMP, along with the mitigation measures detailed in Section 7.63 of the EIAR, will be implemented for the Proposed Development.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 7 (Land, Soils, Geology and Hydrogeology). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on land, soils, geology and hydrogeology. The residual effects remain *neutral, imperceptible and short-term*, consistent with the findings of EIAR Chapter 7.

During the operational phase, the Proposed Development does not involve activities that could give rise to contamination of soils or groundwater. The GIS Substation will not include any processes that present a risk to land or groundwater, and the underground transmission lines do not pose a contamination risk during operation.

4.3 Hydrology

As set out in the EIAR Chapter 8 (Hydrology) for the Permitted Development, the EIAR outlined there is potential for the surface water quality to become contaminated with pollutants associated with construction activity. If a spill occurs, contaminated water and collected surface water run-off which arises from construction sites can pose a short-term risk to nearby watercourses.

The proposed changes do not alter the instream works for the HDD crossing of the Griffeen River. All associated mitigation measures remain unchanged, ensuring that the potential impacts on the streambed, banks, water flow, and water quality, as previously identified, are appropriately managed and mitigated.

The realignment of the underground transmission circuits is minor and will not materially change the identified hydrological impacts of the Permitted Development. The best practice measures outlined in the oCEMP, along with the mitigation measures detailed in Section 8.51 of the EIAR, will be implemented for the Proposed Development.

Figure 4-1 Extract from the South Dublin County Council SFRA Flood Extent Map (SRFA, 2021)

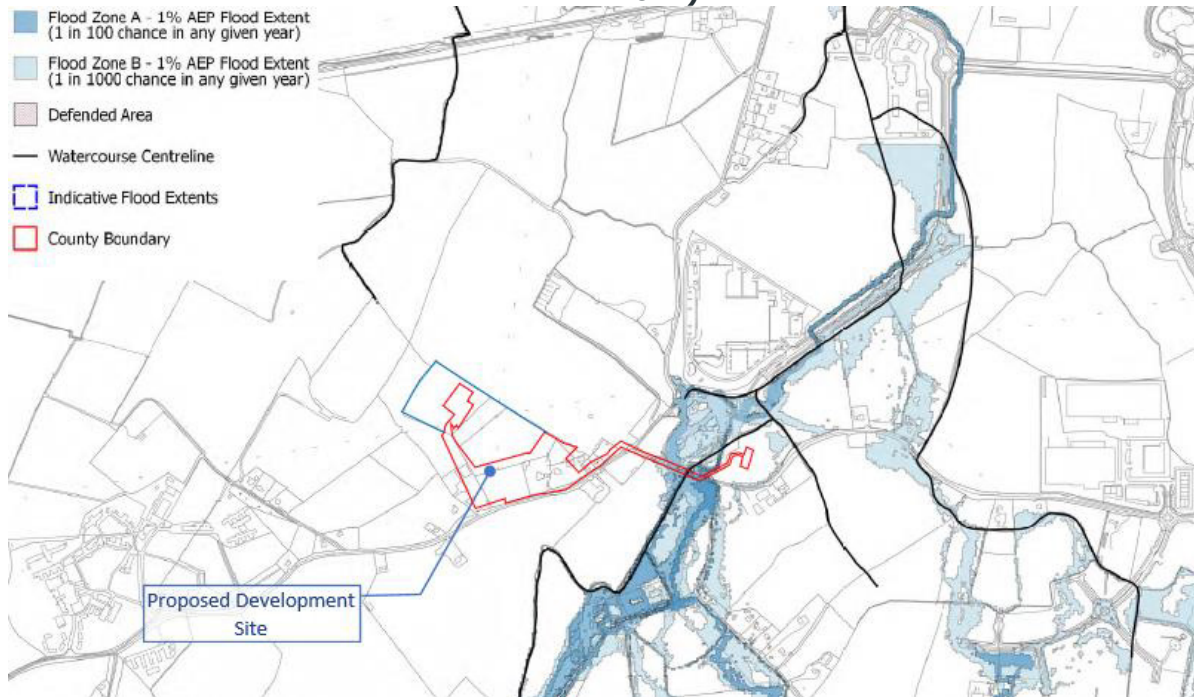


Figure 4-1 above shows the SFRA (February, 2021) fluvial Flood Risk Maps. The site falls mostly within Flood Zone C (less than 0.1%, or 1 in 1,000, annual probability for both river and coastal flooding). The Permitted Development is defined as 'Less Vulnerable Development' and is therefore appropriate for the site's flood zone category, with the required level of flood protection.

The map shows that the flood extent of the River Griffeen does not extend to the proposed northern portion of the development site and demonstrates that this portion of the site lies outside of the 0.1% Fluvial AEP event and is therefore located within **Flood Zone C**. The map shows that the transmission lines will cross the 1% AEP fluvial flood, however as these transmission lines will be underground, it does not introduce any new flood risk areas beyond those previously identified. Accordingly, the conclusions of the SFRA (J.B. Barry & Partners, February 2021) remain applicable to the Proposed Development area, which is not at risk of flooding.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 8 (Hydrology). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on Hydrology. The residual effects remain **neutral, imperceptible and short-term**, consistent with the findings of EIAR Chapter 8.

During operation, the GIS Substation will generate minimal surface water runoff, which will be managed through the existing drainage infrastructure. No process discharges to surface water are proposed. The underground transmission lines do not interact with surface water systems during operation and therefore do not result in hydrological effects.

4.4 Biodiversity

Chapter 6 (Biodiversity) of the EIAR concluded that the Permitted Development would not result in any significant residual impacts on local bat or breeding bird populations. Nevertheless, due to the legal protection afforded to bats and breeding birds, mitigation measures were proposed in the EIAR to minimise the effects of site clearance, construction works and operational disturbance on these species.

Figure 4-2 Habitats within the site of the proposed amendments to the Permitted Development⁵



In addition, approximately 197m of treeline (WL2) habitat will be removed along Peamount Road. This loss will be compensated for, and ecological enhancement achieved, through the planting of native trees, wildflower meadow and woodland understorey planting, as approved under the EIAR. Otherwise, the proposed below-ground HDD methodology for the transmission lines will not result in any additional habitat loss.

There are no proposals to remove hedgerows as part of the Permitted Development. However, two treelines and six individual trees located within the eastern hedgerow were identified for removal in the EIAR to facilitate the Permitted Development. Mitigation measures were specified in the EIAR to avoid or minimise damage to retained trees and hedgerows and will be implemented during the construction phase. The proposed planting of native trees, wildflower meadow and woodland understorey as part of the Permitted Development will further enhance local biodiversity in the medium to long term.

As per the Electricity Transmission Development S146B Amendments Technical Note prepared by Scott Cawley (2026):

Given the minor changes proposed to the consented development, the current habitats recorded on site within the footprint of the proposed amendments to the consented development and the absence of any additional ecological constraints identified during the 2026 verification survey, the ecological mitigation proposed within the EIAR for the consented development (i.e. in relation to Key Ecological Receptors (KERs) which comprise designated

⁵ Source: Electricity Transmission Development S146B Amendments Technical Note (Scott Cawley, 2026)

sites, habitat loss surface water quality, bats, breeding birds) is considered to be sufficient to ensure that the proposed amendments to the consented development would not cause any significant residual effects on any KERs at any geographic scale.

The baseline (as verified by the ecological verification survey) was re-assessed for potential significant impacts as a result of the proposed amendments. It was found that there were no substantial changes to the baseline in terms of new key ecological receptors recorded, and the proposed amendments do not introduce any potential for new significant effects on the verified baseline. The approved mitigation measures as set out in the original EIAR remain applicable to the consented development (and to the proposed amendments). As a result, the conclusions of the original EIAR remain the same and it can be concluded that there will be no significant impacts on biodiversity as a result of the proposed amendments once the suite of mitigation measures as set out in the original EIAR are implemented.

The realignment of the underground transmission lines is therefore considered minor and will not materially alter the impacts on biodiversity identified in the EIAR. Best-practice measures outlined in the oCEMP, together with the mitigation measures detailed in Chapter 6 of the EIAR, will be implemented during construction.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 6 (Biodiversity). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on Biodiversity. The residual effects remain **short-term and not significant**, consistent with the findings of EIAR Chapter 6.

During the operational phase, the Proposed Development does not introduce ongoing disturbance, with limited site activity associated with routine inspection of the GIS Substation. The underground transmission lines will not give rise to disturbance or habitat effects once installed. Operational lighting at the substation will be designed to minimise impacts on fauna.

4.5 Noise and Vibration

As set out in EIAR Chapter 9 (Noise and Vibration), the EIAR identified potential construction noise impacts at nearby receptors. No new sensitive receptors have been identified as a result of the Proposed Development, and the realignment does not bring construction works closer to the identified sensitive receptors.

The proposed changes will not impact the proximity of the proposed works to sensitive receptors. As such, the changes will not generate any additional noise or vibration, and the predicted noise and vibration impacts will remain consistent with those previously assessed.

The realignment of the underground transmission lines is minor and will not materially change the identified noise impacts. The best practice measures outlined in the CEMP, along with the mitigation measures detailed in Chapter 9 of the EIAR, will be implemented for the Proposed Development.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 9 (Noise and Vibration). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on Noise and Vibration. The residual effects remain **negative, not significant** and **short-term**, consistent with the findings of EIAR Chapter 9.

During operation, noise emissions will be limited to the GIS Substation and associated equipment. These emissions have been assessed in the EIAR and are within acceptable limits at the nearest sensitive receptors. The minor amendments to the GIS Substation has no material impact on the noise assessment. The underground transmission lines do not generate operational noise or vibration effects.

4.6 Air Quality

As set out in Chapter 10 (Air Quality and Climate) of the EIAR for the Permitted Development, potential impacts were identified from dust emissions during construction works. In order to determine the overall sensitivity of the area to construction dust soiling impacts and dust-related human health effects, sensitive receptors (e.g. residential properties) within 20m of the DUB40 boundary were identified. No new sensitive receptors have been identified as a result of the Proposed Development, and the realignment does not bring construction works closer to the identified sensitive receptors. The proposed development was assessed as having a low risk of dust soiling impacts and negligible risk of dust-related human health risk during construction phase, the proposed amendment will not alter this. The overall sensitivity of the area will not change from what has been previously assessed.

The proposed changes will not impact the proximity of the proposed works to sensitive receptors. As such, the changes will not generate any additional dust emissions, and the predicted dust soiling and human health impacts will remain consistent with those previously assessed.

The realignment of the underground transmission lines are minor and will not materially change the identified impacts to air quality from the EIAR. The best practice measures outlined in the CEMP, along with the mitigation measures detailed in Chapter 10 of the EIAR, will be implemented for the Proposed Development.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 10 (Air Quality and Climate). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on Air Quality. The residual effects remain ***short-term*** and ***imperceptible***, consistent with the findings of EIAR Chapter 10.

During the operational phase, there are no emissions to air from the underground transmission lines. The GIS Substation does not include combustion processes and will not generate significant emissions. Occasional maintenance visits will not materially affect air quality.

4.7 Climate

Overall, the proposed amendment will not result in any significant changes to quantities of materials or construction activities and therefore, the previous assessment remains valid and unchanged. The best practice measures outlined in the CEMP, along with the mitigation measures detailed in Chapter 10 of the EIAR, will be implemented for the Proposed Development.

In relation to climate change vulnerability, the area of the Proposed Development is still assessed as having low flooding vulnerability and therefore no further climate change risk is predicted as result of proposed alterations.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 10 (Air Quality and Climate). The Proposed Development will not give rise to any new or increased significant effects on Climate. The residual effects remain ***long-term and imperceptible***, consistent with the findings of EIAR Chapter 10.

During operation, greenhouse gas emissions associated with the Proposed Development are negligible. The GIS Substation does not involve significant energy consumption or emissions beyond those already assessed. The underground transmission lines do not give rise to operational emissions.

4.8 Archaeological, Architectural And Cultural Heritage

The Proposed Development does not result in any material changes to the archaeology assessment, and the conclusions outlined in Chapter 13 (Cultural Heritage) of the EIAR remain valid. While no recorded archaeological monuments or features are present within the Proposed Development boundary, a

significant number of recorded archaeological sites are located in the wider surrounding area, indicating a potential for previously unrecorded subsurface archaeological remains to occur beneath original ground levels outside of previously tested areas.

A programme of archaeological investigations has been undertaken at the DUB40 Site in advance of and during development. A geophysical survey carried out in 2019 (Licence No. 19R0190) identified a number of potential anomalies, which were subsequently subject to archaeological testing. The majority of these features were confirmed to be of geological or modern origin; however, a limited number of archaeological features were identified, including pits, a curvilinear feature and areas of burning across three Archaeological Areas (AMS, 2025)⁶.

Following archaeological testing, full archaeological excavation and preservation by record was undertaken under Licence No. 22E0306 between July and August 2022. The excavations revealed Middle to Late Bronze Age pits, from which lithic artefacts including flint and chert flakes and a chert end scraper were recovered, along with later early medieval to medieval pits containing metallurgical waste and a fragment of tuyere. All artefacts will be retained by the National Museum of Ireland. In addition, a programme of archaeological monitoring undertaken during advance GSI works did not identify any further archaeological remains.

The mitigation measures outlined in Chapter 13 of the EIAR, including archaeological monitoring during construction, will continue to be implemented for the Proposed Development, and a report on the results of this monitoring will be submitted to the National Monuments Service upon completion (AMS, 2025). On this basis, the Proposed Development will not give rise to any additional or significant archaeological impacts beyond those previously assessed.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 13 (Cultural Heritage). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on archaeological, architectural and cultural heritage. The residual effects remain **neutral** and **not significant**, consistent with the findings of EIAR Chapter 13.

The operational phase will not involve ground disturbance or activities with potential to affect archaeological or cultural heritage resources. The underground transmission lines will remain in situ without interaction with the receiving environment.

4.9 Landscape And Visual

The Proposed Development does not result in any material changes to the assessment of landscape and visual impacts. The assessment outlined in Chapter 11 (Landscape and Visual) remains valid. The mitigation measures detailed in Chapter 11 of the EIAR, including best practice construction methods to minimise visual disruption, will be implemented for the Proposed Development.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 11 (Landscape and Visual). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on Landscape and Visual amenity. The residual effects remain **short-term**, **moderate**, and **negative**, consistent with the findings of EIAR Chapter 11.

During operation, the GIS Substation will represent a permanent above-ground structure; however, it remains consistent with the permitted development and established landscape context. The underground transmission lines will not be visible and therefore do not give rise to operational visual effects.

⁶ Source: AMS (2025) Archaeological Testing, Excavation and Monitoring Report, Milltown Townland, Newcastle, Co. Dublin

4.10 Traffic and Transportation

The Proposed Development does not result in any material changes to the assessment of traffic and transportation. The assessment outlined in Chapter 12 (Traffic and Transportation) remains valid. The best practice measures outlined in the CEMP, along with the mitigation measures detailed in Chapter 13 of the EIAR, will be implemented for the Proposed Development.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 12 (Traffic and Transportation). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on Traffic and Transportation. The residual effects remain ***short-term, negative, and not significant***, consistent with the findings of EIAR Chapter 12.

During operation, traffic associated with the Proposed Development will be limited to occasional maintenance visits to the GIS Substation. These movements are negligible and will not materially affect the surrounding road network. The underground transmission lines do not generate operational traffic.

4.11 Waste Management

The Proposed Development does not result in any material changes to the assessment of Waste Management. The assessment outlined in 14 (Waste Management) remains valid. The best practice measures outlined in the CEMP, along with the mitigation measures detailed in Section 14.58 of the EIAR, will be implemented for the Proposed Development.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 14 (Waste Management). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on Waste Management. The residual effects remain ***short-term and not significant***, consistent with the findings of EIAR Chapter 14.

During operation, waste generation associated with the GIS Substation will be minimal and will be limited to small quantities of maintenance-related waste (e.g. packaging, minor electrical components and general office-type waste). These materials will be appropriately segregated and removed off-site by authorised waste contractors in accordance with applicable waste management legislation.

4.12 Material Assets

The Proposed Development of the underground transmission lines will ensure that the proposed development does not conflict with existing or future utilities infrastructure. The Proposed Development is minor and will not materially change the identified impacts to material assets as set out in the EIAR. The best practice measures outlined in the CEMP, together with the mitigation measures detailed in Chapter 15 (Material Assets) of the EIAR, will be implemented for the Proposed Development.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 15 (Material Assets). During the construction phase, the Proposed Development will not give rise to any new or increased significant effects on Material Assets. The residual effects remain ***short-term, imperceptible, and neutral***, consistent with the findings of EIAR Chapter 15.

During operation the GIS Substation will require limited utility connections. These demands are minimal in scale and have already been assessed within the EIAR. The underground transmission lines do not require utilities during operation and do not interact with existing infrastructure once installed.

4.13 Appraisal of Interactions

The Proposed Development will not introduce or alter any interactions and inter-relationships between environmental factors that have been considered within Chapter 16 (Interactions) of the EIAR. Chapter 16 considered that there is no significant impact from Interaction as a result of the Original Submission,

and hence there is no likelihood of significant effects on the environment arising from the interactions associated with the Proposed Development.

No additional mitigation measures will be required than as previously set out in EIAR Chapter 16 (Interactions). The Proposed Development will not give rise to any new or increased significant effects arising from interactions.

4.14 Appraisal of Cumulative Impacts

The Proposed Development entails a slight increase in the length of the underground transmission lines of approximately 45 m for Circuit 01 and 39 m for Circuit 02, together with a localised realignment of the underground transmission lines within an area that has already been assessed as part of the EIAR.

The GIS Substation and associated transmission infrastructure have had the benefit of planning permission for a number of years and are therefore a known and established component of the receiving environment. Accordingly, the development must be considered as part of the baseline for the assessment of cumulative effects by other existing and permitted developments in the area.

Having regard to the limited scale and localised nature of the Proposed Development, and its location, the proposed changes will not give rise to any additional cumulative impacts beyond those identified and assessed in the specialist chapters of the EIAR for the Permitted Development.

Furthermore, given that the underground transmission lines do not give rise to operational environmental effects and that the GIS Substation operates with minimal activity, the Proposed Development does not contribute to cumulative effects during the operational phase beyond those already assessed.

No additional mitigation measures will be required than as previously set out in the EIAR. The Proposed Development will not give rise to any new or increased significant cumulative effects.

5. CONCLUSIONS

In conclusion, the Proposed Development and accompanying changes outlined in Section 2.2 above do not result in any material changes to the environmental impacts previously assessed in the EIAR. The environmental effects during the construction phase are consistent with those described in the original EIAR, and the mitigation measures set out in the relevant chapters remain applicable and sufficient to address potential impacts.

The assessment has also considered the operational phase of the Proposed Development, including the revised GIS Substation. The GIS Substation will operate with minimal on-site activity, limited to routine inspection and maintenance, and does not give rise to significant emissions, discharges or environmental effects beyond those already assessed in the EIAR. The underground transmission lines, once installed and commissioned, will not give rise to environmental effects during operation.

The assessment across various environmental topics, including population and human health, land, soils, geology, hydrology, biodiversity, air quality, climate, noise and vibration, archaeology, landscape and visual, material assets, waste, and utilities, remains valid, with no new impacts arising from the proposed changes.

All mitigation measures from the EIAR will continue to be implemented to ensure that any potential adverse effects are minimised. No additional mitigation measures are required beyond those previously set out.

Accordingly, the Proposed Development will not give rise to any new or increased significant environmental effects, and the overall environmental impact of the development, across both construction and operational phases, remains largely unchanged from that previously assessed in the EIAR.