Fingal to East Meath Grid Reinforcement

The Ward 400 kV Substation

Pre-Application Consultation under Section 182E of Planning and Development Act 2000, as amended 17th June 2026

(ACP-324085-26)

EirGrid

Meeting Details

Date: 17th June 2026
Time: 10.00am
Venue: Microsoft Teams

Attendees:

1. Dara McGowan, Senior Lead Project Manager (EirGrid)
2. Katelyn Larkin, Project Manager (EirGrid)
3. Leah Kenny, Senior Lead Planner (EirGrid)
4. Robert Fennelly, Lead Senior Ecologist (EirGrid)
5. Carolyn Howle Outlaw, Lead Archaeologist (EirGrid)

6. Ursula O'Higgins, Project Director (AtkinsRéalis)
7. Duncan McKune, Programme Manager (AtkinsRéalis)
8. Colin Prendeville, Project Manager (AtkinsRéalis)
9. Eimear Egan, Environmental Lead (AtkinsRéalis)
10. Aiden O'Neill, Senior Planner (Coakley O'Neill)

AGENDA

1. Project Background
2. Proposed Development
3. Key Considerations
4. Engagement to date
5. Next steps

1.0 Project Background



1.0 Fingal to East Meath Grid Reinforcement Project

Capital Project identified under the Infrastructure Agreement to address significant additional capacity needs in the North Dublin and East Meath area.

This project will accommodate the continued growth in electricity demand in the region, which is being driven by several sectors:

- Residential housing;
- Commercial and industrial development;
- Electrification of heat (heat pumps) and transportation (electric vehicles and public transport); and
- The integration of offshore renewable energy connections.

East Meath and Fingal are among the fastest-growing regions in the country, and with this growth comes a greater requirement for electricity.

The existing transmission infrastructure in the region is nearing its capacity limit. To ensure a reliable and sustainable electricity supply for communities, residents, schools, and businesses, new infrastructure is urgently needed.

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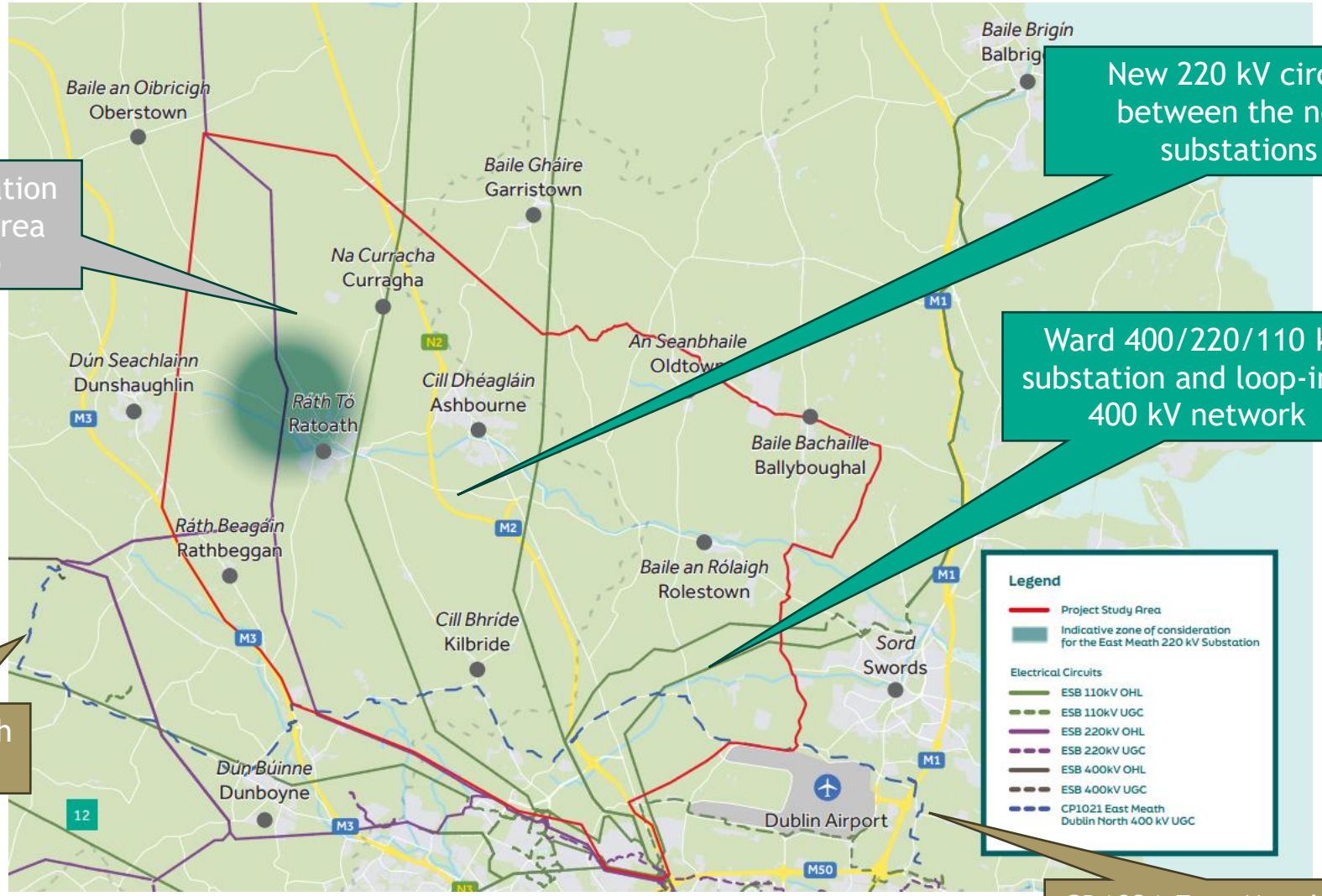
1.0 Spatial Context



220 / 110 kV substation in the east Meath area (*developer-led)

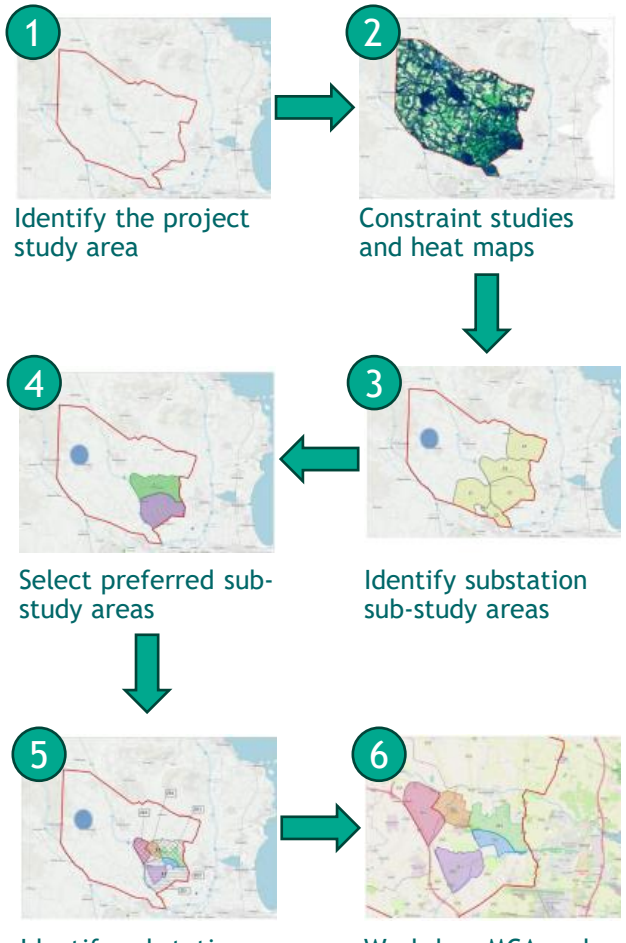
New 220 kV circuit between the new substations

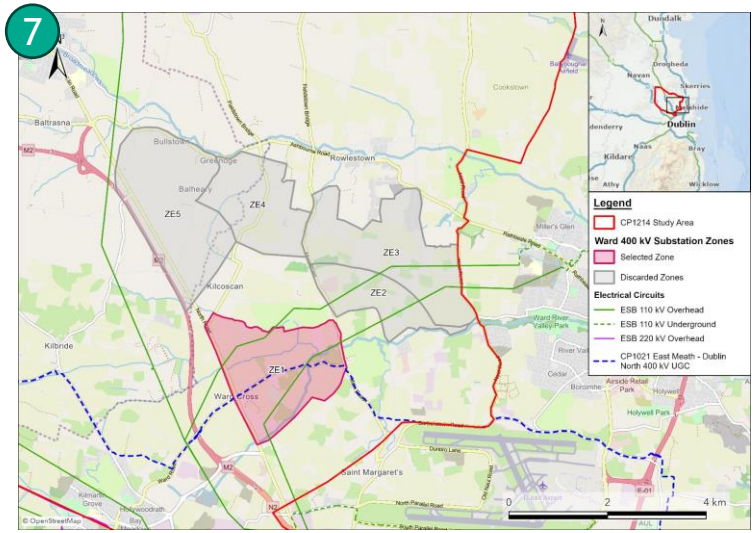
Ward 400/220/110 kV substation and loop-in to 400 kV network

CP1021 East Meath North Dublin Grid upgrade

CP1021 East Meath North Dublin Grid upgrade

1.0 Site Section Process



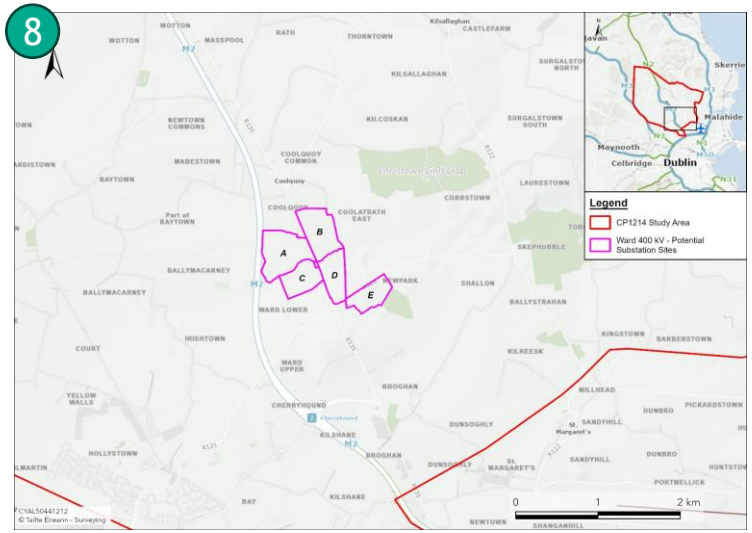


Step 3 Public Consultation

- Step 3 Public Consultation, October and November 2024
- Feedback on substation technology options and substation study areas, represented by zones.
- Step 3 Consultation Report published.

Step 3 Further Assessment

- ZE2 & ZE3 eliminated due to poor connectivity to existing grid and limited land availability
- Ongoing landowner engagement and focus on remaining zones: ZE1, ZE4, ZE5
- GIS chosen over AIS due to insufficient land for AIS footprint
- Best performing substation zone identified: ZE1
  - Suitable land availability
  - Aligns with EMND 400 kV UGC route
  - Proximity to existing infrastructure
  - Access to regional roads (R135, R121)



Step 4

5 potential sites identified for Ward 400 kV Substation.

1.0 Site E ("Wards Cross")

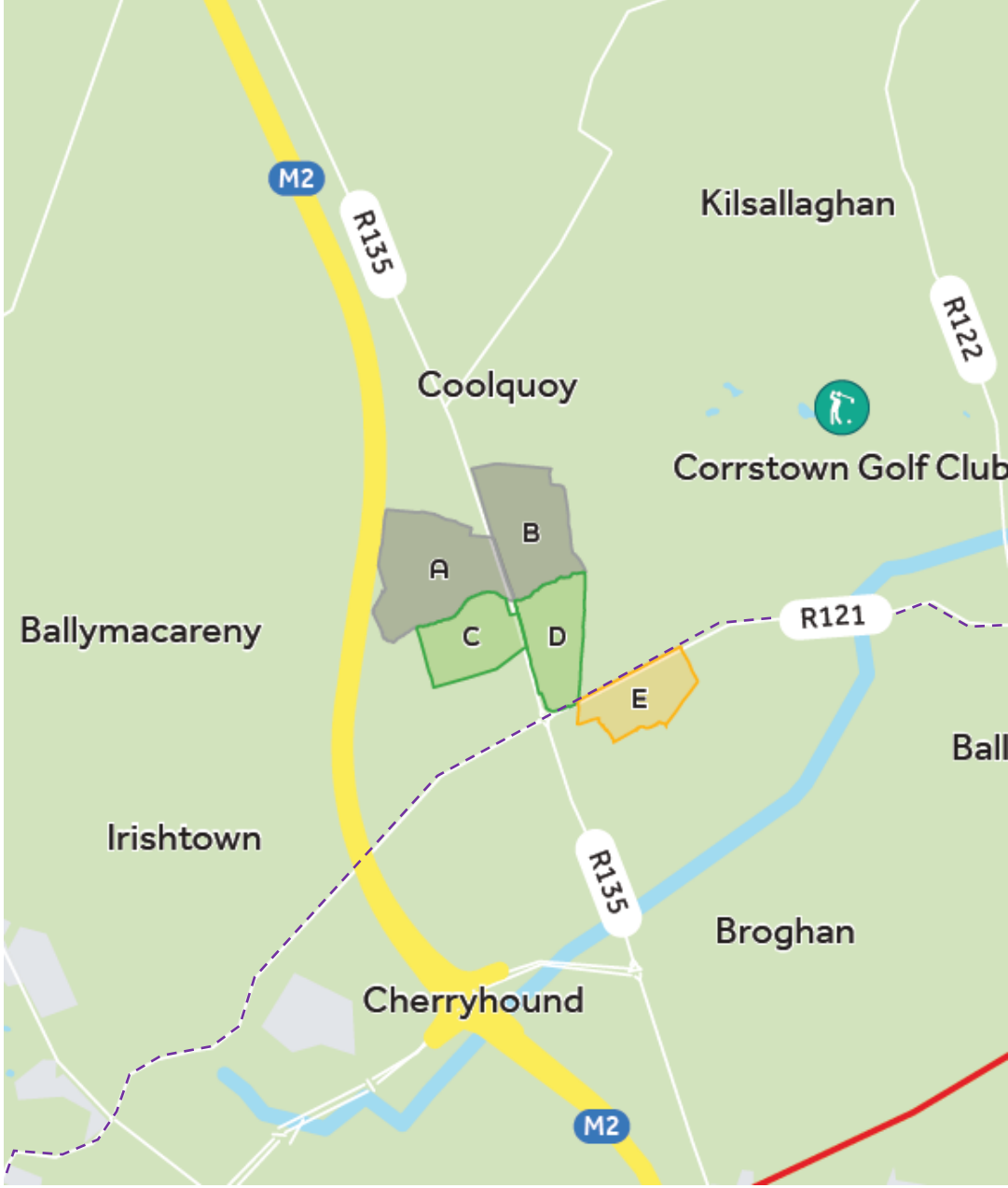
Best Performing Option

Five potential sites identified(A-E).

Site A and Site B, ruled out as furthest away from the consented East Meath North Dublin 400 kV UGC(ABP SID ref.ABP-319422-24) and presence of significant flood risk.

Identification of Site E as the best performing option, because:

- Enough space for the substation and future expansion, with lower construction risk than other site options.
- Located beside the R121, which shortens connection distances to the consented EMND 400 kV UGC.
- No known flood risk, unlike the other options.
- Only one existing MV OHL that needs to be diverted, compared to larger and/or more complex lines at other sites.
- Space for landscaping, screening, biodiversity improvements.



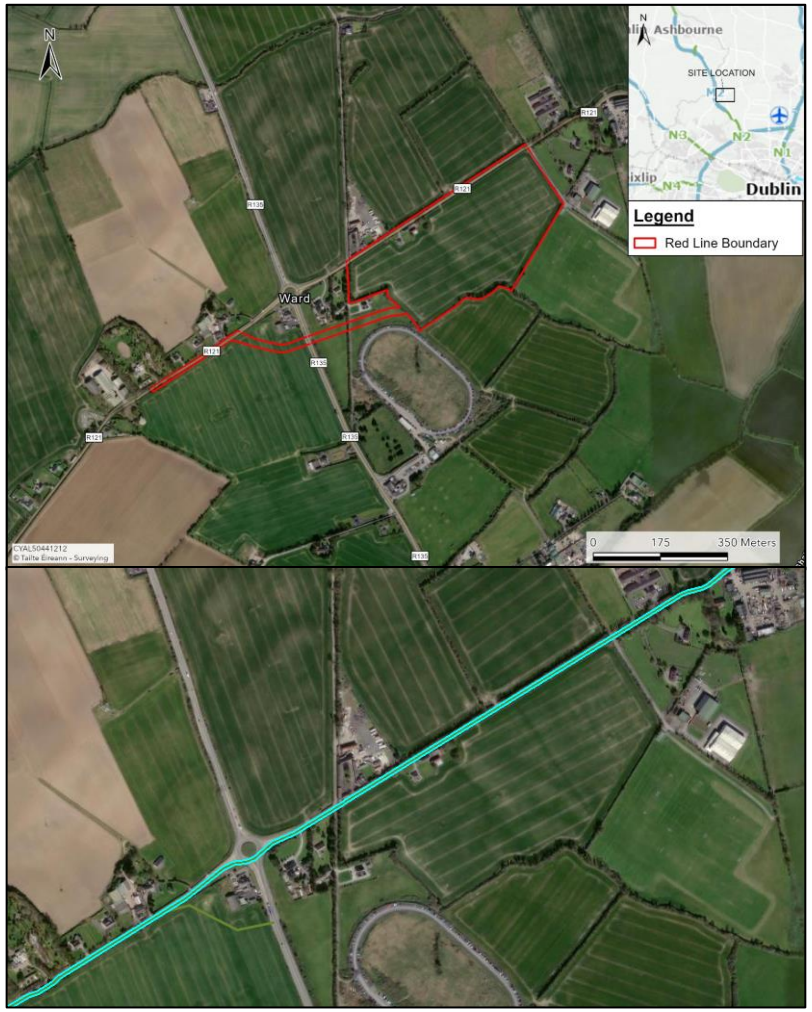
2.0 Proposed Development



2.0 The Proposed Development

New 400/220/110 kV GIS substation and loop-in to the permitted East Meath North Dublin 400 kV UGC

Feasibility work on other individual elements / projects forming part of the FEM Capital Project is ongoing

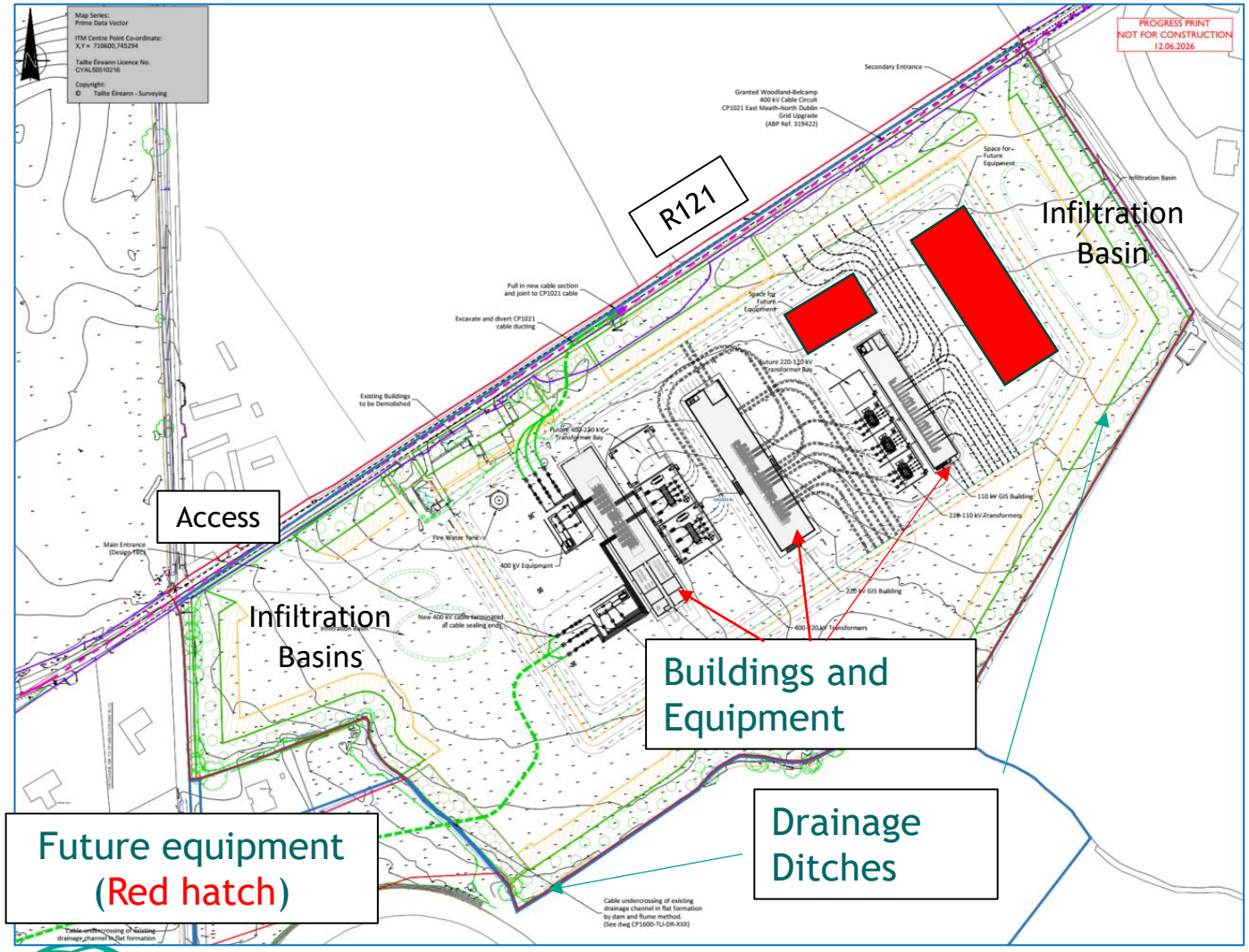


Proposed Development Red Line Boundary and CP1021(cyan) Route along R121

Critical enabling infrastructure for residential housing, commercial and industrial development, and the electrification of heat and transportation in the North Dublin and East Meath area.

Will become a critical node on the network and a point of connection for future transmission and distribution circuits, itis being sized accordingly.

2.0 Substation Layout



- Substation(fenced) area: ± 6.5 ha
- Substation elements:
  - 3 no. buildings (1 x single storey, 2 x double storey)
  - 5 no. transformers
  - 2 no. shunt reactors
  - Other ancillary equipment
- 1 access onto R121, internal road network and ancillary infrastructure e.g. drainage, lighting etc
- Landscaping and boundary treatment i.e. palisade fence and outer concrete post and rail fence
- Requires demolition of existing buildings in the north-west of the site(2no. habitable houses and 3no. farm sheds)

2.0 Loop-in Circuit

- Connects into the previously permitted East Meath North Dublin 400 kV UGC via two joint bays along the R121
- Likely requires trenches across the R135 and removal of some hedgerows
- Preliminary design is ongoing that will confirm the connections to CP1021



NB: The current assumption is that CP1021 will be constructed and energised before CP1214 construction commences

2.0 Roads and Traffic Design

- One point of access from the R121 designed in accordance with DN-GEO-03060-03
  - Gated and c. 9m wide
  - Road Safety Audit Stage 1 to be completed
- Internal circulation road (c4.5m wide)
- Construction phase:
  - Temporary increase in traffic on the surrounding road network
  - Loop-ins will connect into joint bays on the R121 requiring a road opening license
  - Components of the works i.e., transformers, are likely to require an abnormal load delivery. A Feasibility Assessment for extraordinary abnormal loads will be undertaken
  - A construction traffic management plan (CTMP) will be prepared
- Operational stage:
  - Limited traffic generation

2.0 Enabling Works



ESB MV OHL relocation works and other affected utilities (Eir and LV(local)) ESB along the R121

Demolition and removal of existing building and structures along the R121:

- 1no. Bungalow
- 1no. Vacant bungalow
- 3 farm buildings



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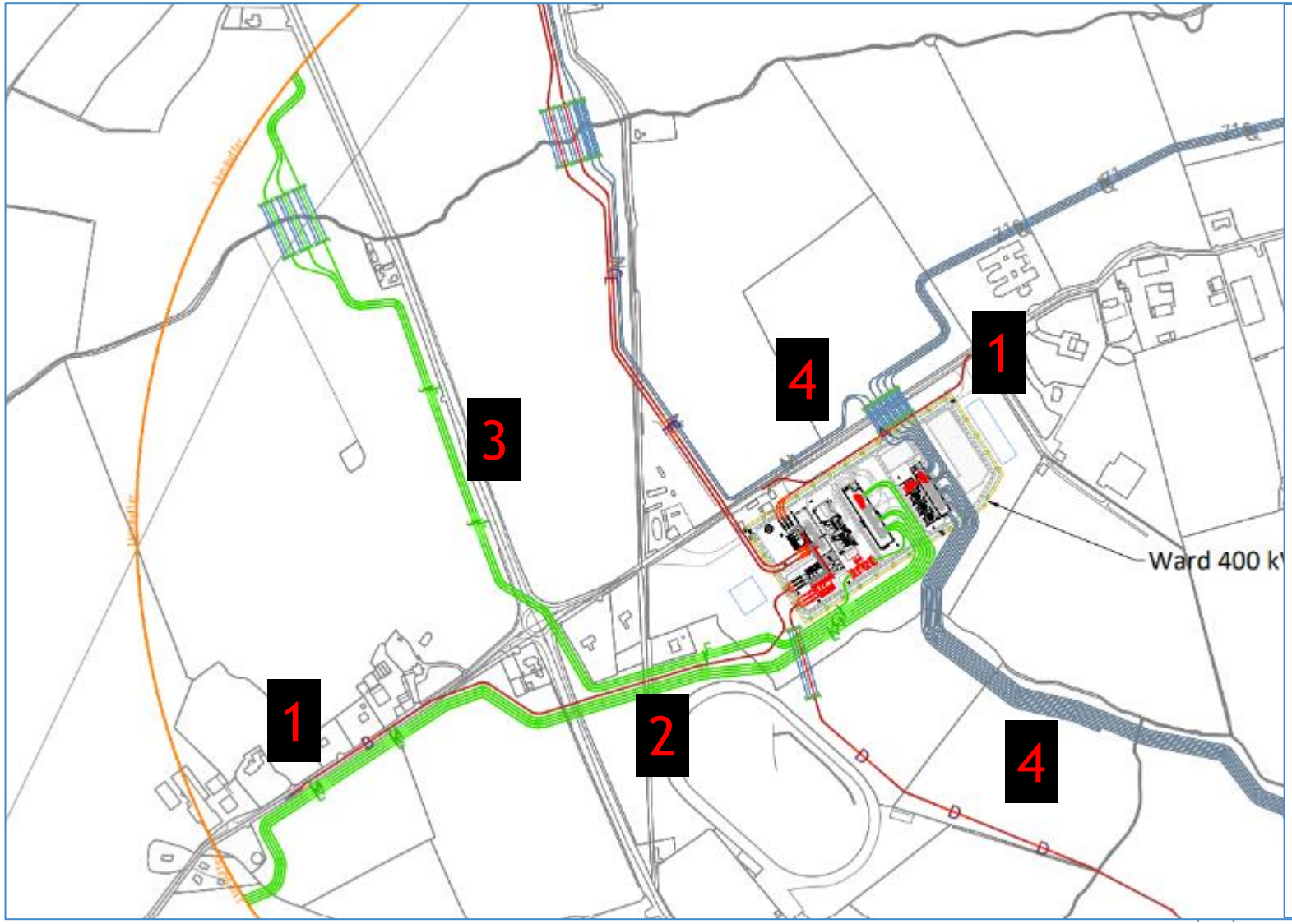
2.0 Future Connection Projects



Part of Proposed Development

1. 2 x loop-in(s) to CP1021 (1 loop-in and 1 loop-out)
2. Future ducting in the western cable corridor

To be assessed as part of cumulative effects

3. 1 x Crakenstown-Ward 220 kV
4. 4 x DSO 110 kV loop-ins

The substation will become a key node on the transmission system – however there is insufficient information on future circuits for them be assessed in the cumulative effects.

3.0 Key Considerations



Planning Context – Strategic Infrastructure Development

- Given the nature and function of the proposed development, EirGrid considers the project to comprise Strategic Infrastructure Development (SID), having regard to Section 182A of the Planning & Development Act 2000, as amended
- The proposed development comprises development for the purposes of electricity transmission as defined in Section 182A(9) of the Act. The proposed development will form part of the transmission network
- The development will contribute substantially to the fulfilment of objectives in the National Planning Framework and Regional Spatial and Economic Strategy
- Policies guiding the development of electrical infrastructure are at:
  - a European level (e.g., European Green Deal, 2019; the Paris Agreement, 2015; Renewable Energy Directive (RED III); Europe 2030 Climate and Energy Framework; and Energy Roadmap 2050)
  - National level (e.g., National Development Plan 2021-2030, National Planning Framework First Revision, 2025, and the Policy Statement on the Security of Electricity Supply)
  - Regional level (Regional Spatial and Economic Strategy for the Eastern and Midland Region, 2019-2031)
  - Local level (Fingal Development Plan [2023-2029])

3.0 Planning Context

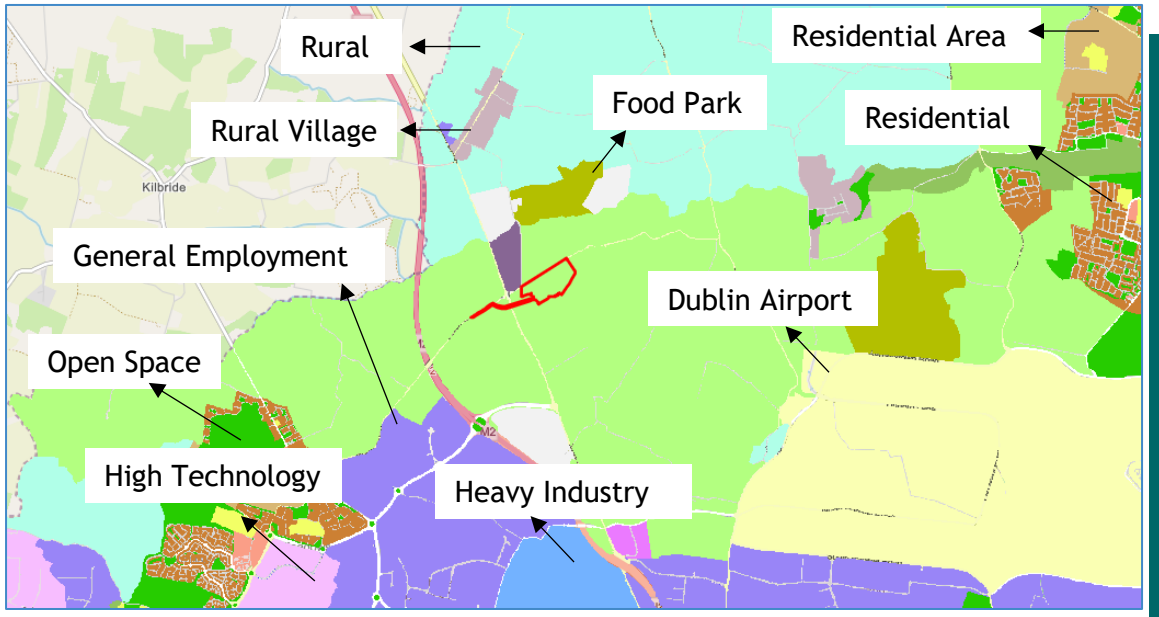
- The local planning policy context supports the provisions of:
  - EirGrid's Grid Development Strategy – Your Grid, Your Tomorrow 2017
  - Grid Implementation Plan 2023-2028
  - Shaping our Electricity Future-A Roadmap to achieve our Renewable Ambition 2021
  - the Powering Up Dublin Strategic Framework for Planning and Environment 2022
  - the Transmission Development Plan (TDP) 2023-2032
  - Policies also support the development of transmission and distribution networks, to serve the existing and future needs of the County, and to facilitate new transmission infrastructure projects and technologies



Land Use Zoning

The Proposed Development is in lands zoned as ‘Greenbelt’:

- **Objective:** Protect and provide for a Greenbelt
- **Objective Vision:** Create a rural/urban Greenbelt zone that permanently demarcates the boundary (i) between the rural and urban areas, or (ii) between urban and urban areas.





Environmental Assessments and Reporting

Environmental Impact Assessment (EIA)

- Project type Class 1(a) of Part 2 of Schedule 5 of the PDR 2001 (as amended) relevant.
- Proposed Development does not meet the mandatory EIA threshold therefore “sub-threshold" assessment required.
- Preliminary EIA screening opinion based on criteria set out in Schedule 7 of the PDR 2001 (as amended) – no likely significant environmental effects (Feb 2026).
- Following the findings of survey work and ongoing design development (May 2026), the potential for significant effects in relation to one or more environmental factors cannot be ruled out with sufficient certainty.

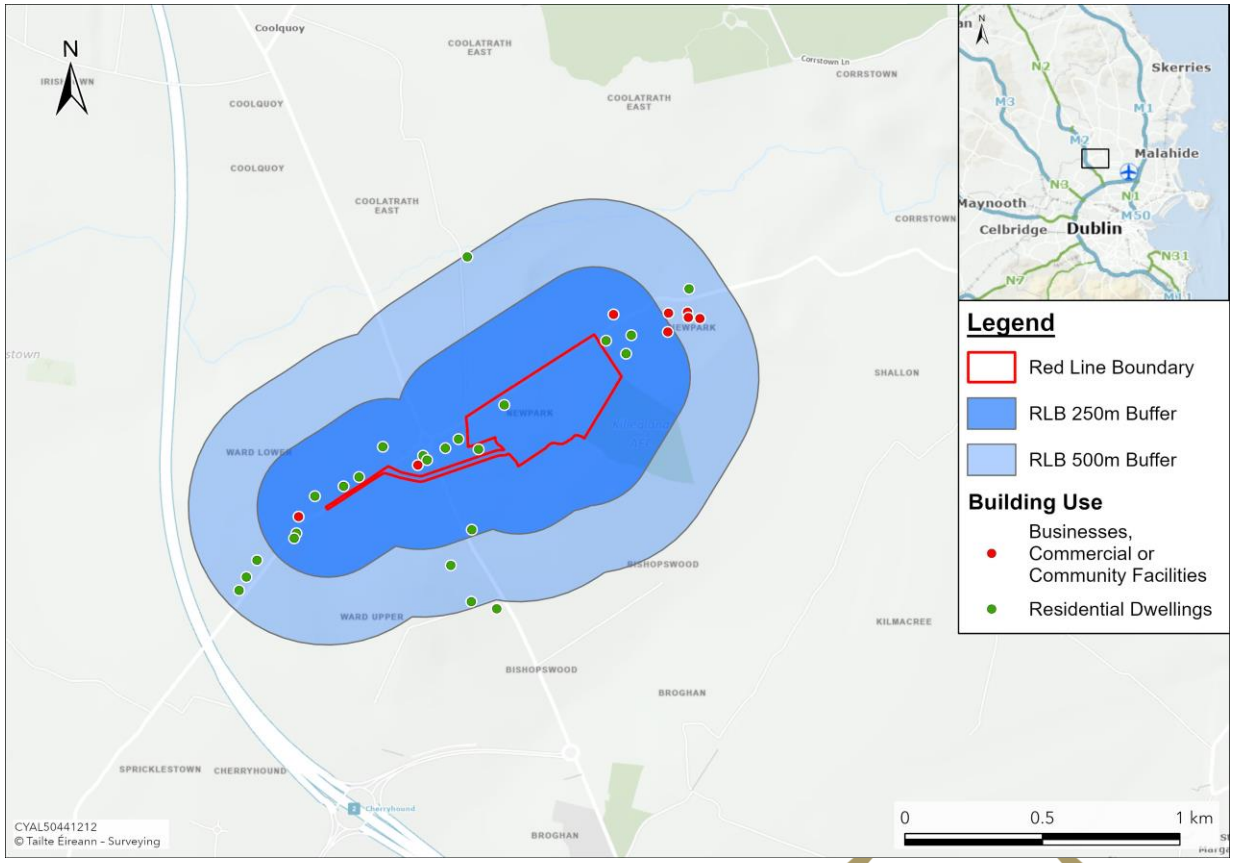
On a precautionary basis, and to ensure full consideration of all likely significant environmental effects, EirGrid considers an EIA should be undertaken, and will prepare an EIAR in support of the application.

Appropriate Assessment (AA)

Considered the Proposed Development screens out for AA. AA Screening Report will be submitted with the planning application.

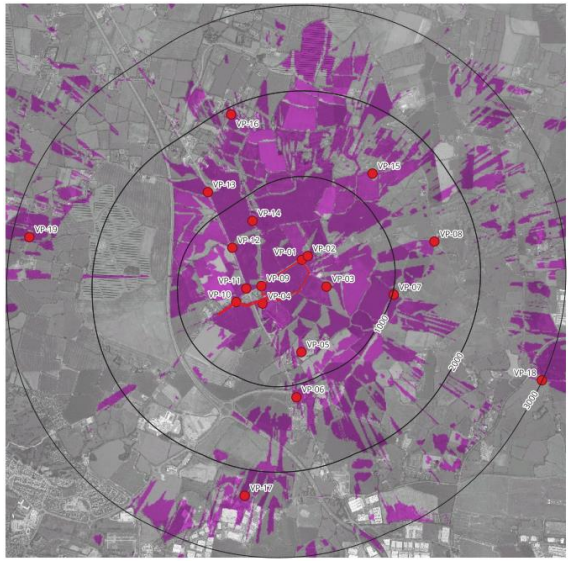
Site Context - Sensitive Receptors

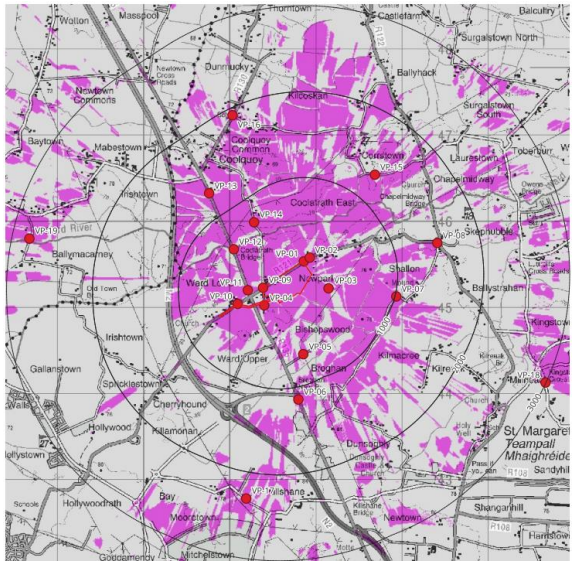
Receptor	Within RLB (count)	Within 250m of RLB (count)	250-500m of RLB (count)	Closest identified (if none within 500m of RLB)
Residential Properties (including farm dwellings)	1	16	7	Property ca. 12m of the eastern border
Community Facility	0	1	0	St Kevins Football Club and Killegland Soccer pitches adjacent to the south-east of the Proposed Development
Health Care Facility	0	1	0	Newpark Care Centre located ca. 100m northeast of proposed development
Bus/Railway Station	1	1	0	N/A
Local Business / Commercial (excluding agricultural buildings / farms)	0	3	4	Park and Fly Dublin – adjacent to the southern bounds



Landscape and Visual Considerations

- Zone of Theoretical Visibility established.

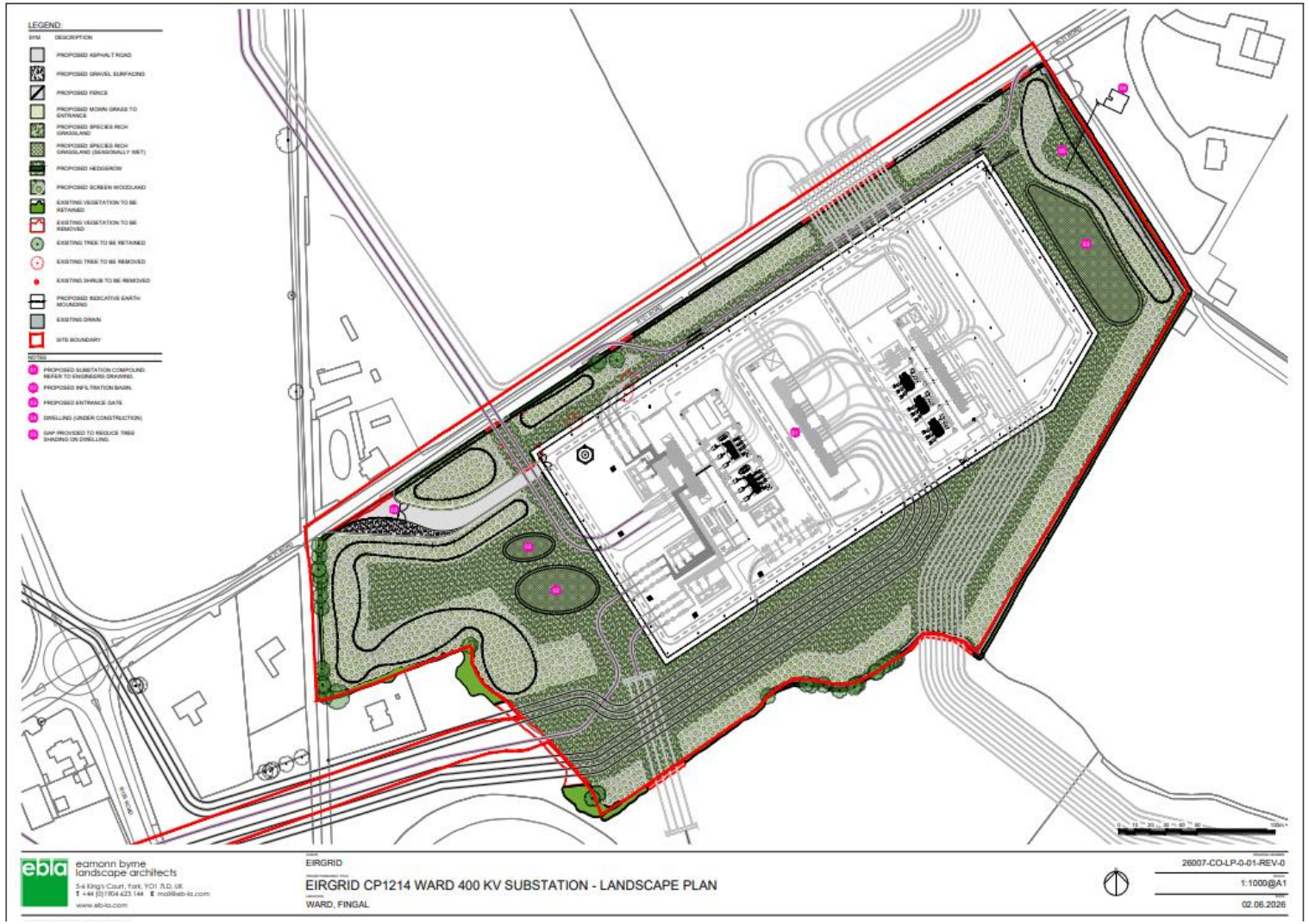




- Architectural treatment concepts underway.
- Residential Visual Impact Assessment being done for dwellings within 300m of the site.
- Specific photomontages being done for 2 dwellings to the east.

Landscape Mitigation Plan (DRAFT)

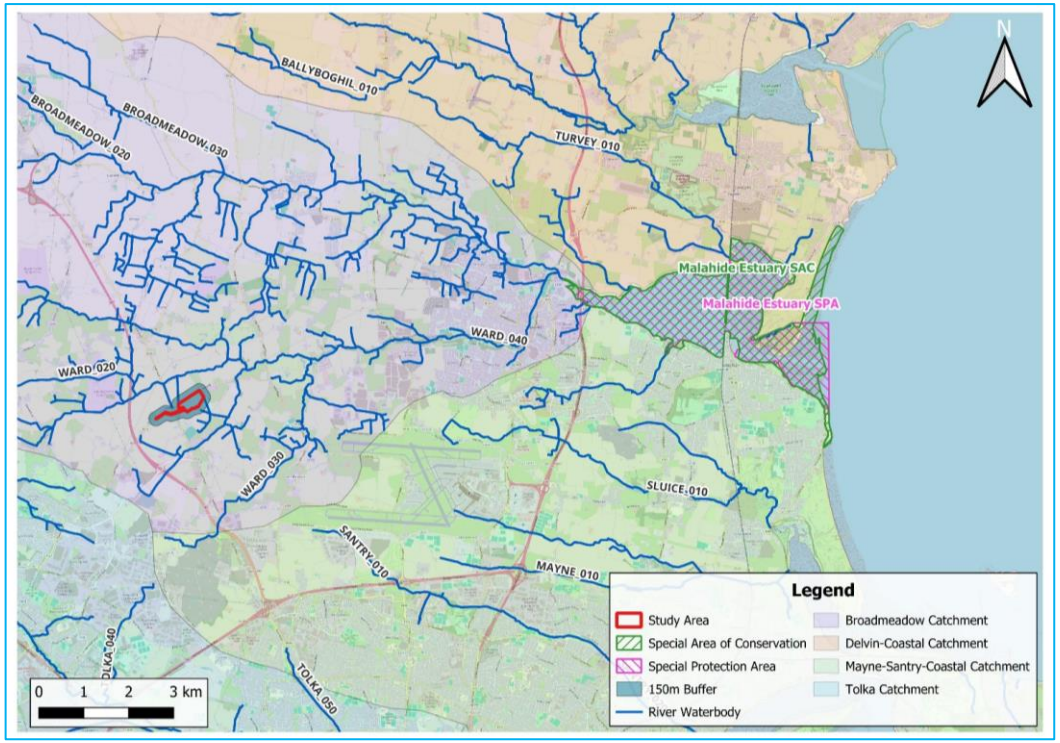
- Strategic planting to provide screening to nearby properties.
- Locations for earth mounding (black lines) are indicated. Suggest mounding up to 2 to 3 m above existing levels.
- Setback proposed screen planting 50m from dwelling to east to reduce overshadowing.
- Fencing along the R121 Road (behind the existing/ proposed hedge) and around the main entrance.
- Cable corridor planting to be determined.



Biodiversity - Considerations

Ecology Surveys:

- **Botanical Surveys** (2025) – No rare/nationally significant species recorded. No invasive species recorded.
- **Hedgerow Surveys** (2026) hedgerow classification survey required.
- **Bird Surveys:** Several Red and Amber Listed (BoCCI4)* identified in the Proposed Development Site.
- Species listed on Annex I of the EU Birds Directive recorded. Golden Plover (QI species of Malahide Estuary SPA) recorded within the Development Site on one occasion (27no. individuals recorded on 02/03/2026 within the Study Area, roosting in the arable crop.
- *Birds of Conservation Concern





Cultural Heritage Considerations

- Geophysical surveys revealed sub-surface features – Feature M1 located directly beneath substation.
- Test trenching planned – commencing July - Awaiting licence from NMS.





Figure 6: *Proposed Test Trench Layout (white lines): Potential Archaeological Features (Red) & Levelled Boundaries (Cyan) (OHL exclusion area shown in yellow)*

Abnormal Load Assessment

- **Pre Planning:** Undertake Feasibility Assessment for extra ordinary abnormal load deliver for planning submission
  - Confirm viable route from a viable port to site – this is expected to be Dublin Port
  - Viable route(s) which can transport the equipment from the port to the substation site (local adjustments on junction's signs/bollards)
  - Transformer weight is 300 tonnes / 300,000 kg
- **Post Consent:** Abnormal load permit will be applied for by ESB
  - Any surveys required will be done by the ESB
  - Capacity and Clearence Assessments (bridges and roads to be utilised)
  - Falling Weight Deflectometer Tests etc.
  - Any additional / further assessments will be done by the ESB

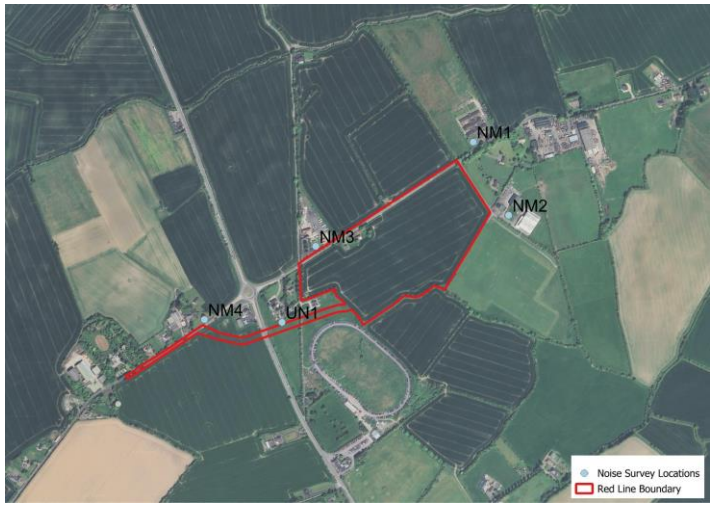
Noise & Vibration

Baseline Noise Environment (April 2026)

- 5no. Monitoring locations (UN1, NM1 – NM40)
- 24 Sensitive receptors within 300m (21 residential, plus community/nursing uses)

Existing Noise Environment

- Dominated by road traffic and aircraft noise
- Rural setting with intermittent local activity



Noise Monitoring Locations

Cumulative Effects to be Considered



- CP1214b/CP1601: Crakenstown-Ward 220 kV circuit – Planned (OHL/UGC – TBC)
- 4no. 110 kV loop-in circuits to existing OHLs (north and south)
- Committed Capital Projects with ongoing design development
- Information pending /evolving design details

Other developments in the wider area:

- FW21A/0124 – Residential dwelling ca. 12m east of the site boundary
- ACP Reference PC06F.323897 – Proposed 680 MW Peaking Plant + 400kV GIS substation (ca. 2km south (west of Kilshane Road bridge crossing N2)
- Ongoing monitoring of planning applications



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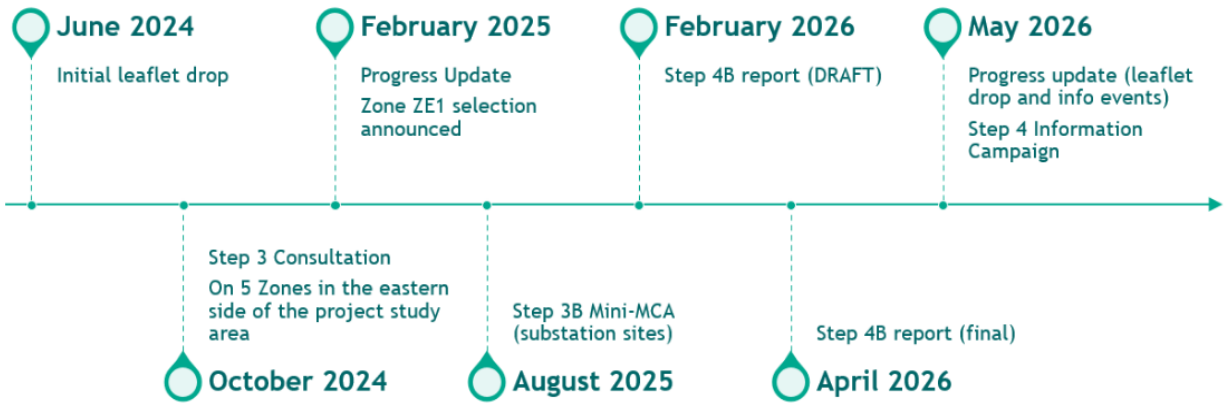
4.0 Engagement to Date



Engagement to Date



Fingal County Council:

- December 2024 - Initial project briefing
- February 2026 – Landscape & Visual, Land-Use, Ecology, Cultural Features, and Stakeholder Engagement
- April 2026:Transportation/Water Services/Parks & Green Infra

Key Feedback Themes:

- Detailed landscape and visual mitigation required
- Justification for demolition of properties
- Strong emphasis on BNG and Green Infrastructure
- Second access and R121 (safety considerations)
- Preference for SuDS-based drainage solutions
- 5-year hedgerow aftercare plan required

Other Key Stakeholder Engagement:

- DAA/AirNav Ireland: Height restriction / aviation safeguarding
- Uisce Éireann: Potential overlap with water infrastructure (along R135)
- ESB Network: Grid interference and transport constraints
- TII: UGC crossings and transport constraints

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5.0 Next Steps



5.0 Next Steps

- Design Freeze imminent
- Public engagement is ongoing
- Landowner engagement is ongoing
- Stakeholder engagement is ongoing. Upcoming Engagements:
  - Inland Fisheries Ireland (open cut trenching of watercourse, landscape planting)
  - ESB
  - FCC (concept architectural design, SUDs, landscape planting, townland boundary hedgerow relocation)
- Surveys:
  - Test trenching programmed to start July – awaiting NMS licence
  - Ecology & environmental surveys ongoing

- Application will include an Environmental Impact Assessment Report (EIAR) and suite of other supporting documents.
- A follow up meeting may be required as assessments are progressed.

Priority Application
Accelerated Delivery

Submission of Application Q4 2026