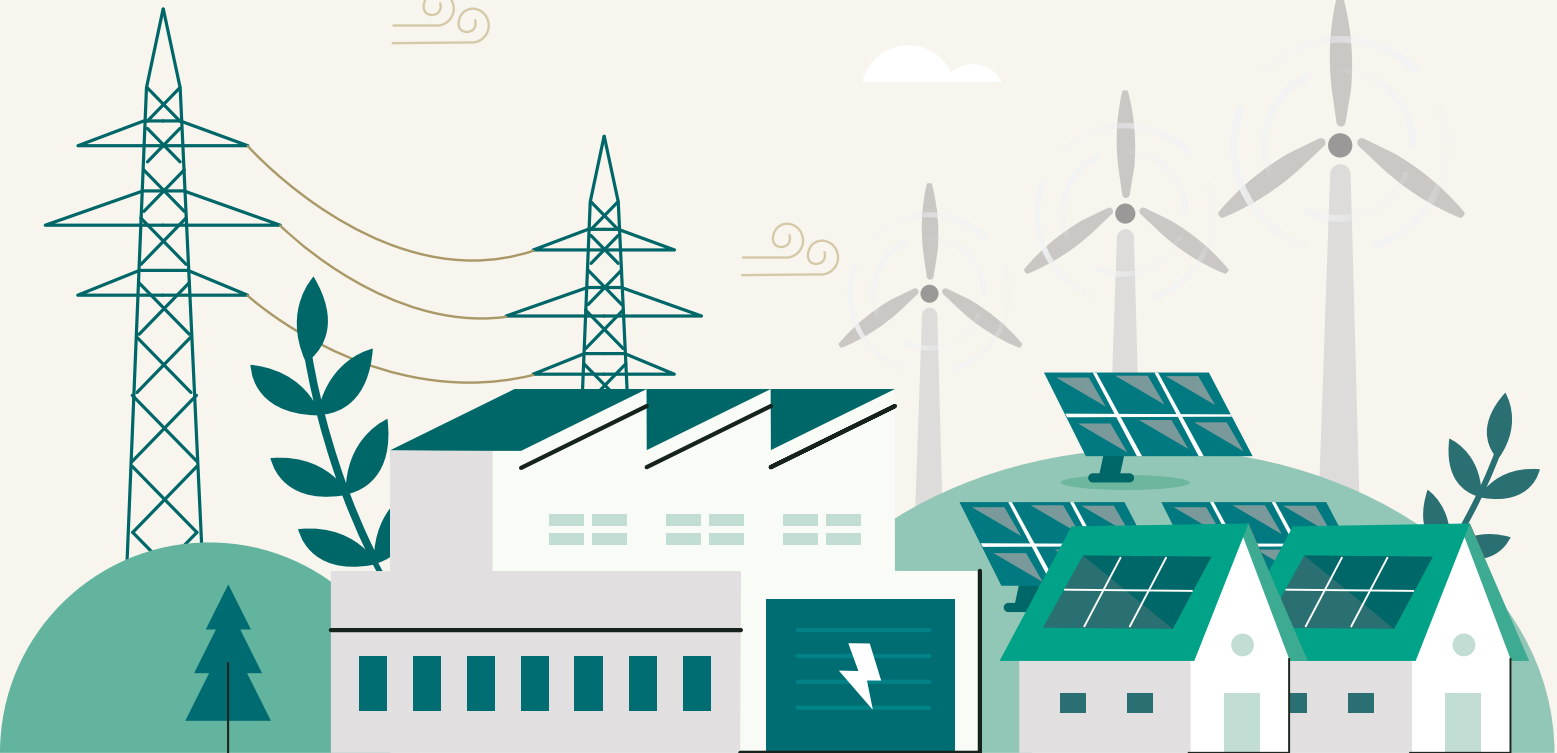
EirGrid.ie

Powering Up Fingal to East Meath

Have your say

Project Update, October 2024

Public Consultation Information



We were previously in touch in June 2024 to introduce EirGrid and our plans to reinforce the electricity grid in your area. We are now consulting on where exactly to locate our substation and which technologies to use in the eastern section of the project study area, in the vicinity of Fingal.

This brochure presents the proposed options for the Fingal to East Meath Grid Reinforcement Project, and EirGrid is seeking your feedback on these plans.

There is also information on our public consultation, information events and how to get in touch with EirGrid at the end of this document.

Who is EirGrid and What Do We Do?

EirGrid is a state-owned company that develops, manages, and operates Ireland's electricity grid. We are responsible for the safe, secure, and reliable supply of Ireland's electricity, bringing power from where it is generated to the distribution network that supplies the electricity we use every day in homes, businesses, schools and hospitals.

EirGrid is responsible for leading the secure transition of the electricity grid to a sustainable, low-carbon future.

We are responsible for the safe, secure, and reliable supply of Ireland's electricity.



What is the Fingal to East Meath Grid Reinforcement Project?

East Meath and Fingal are among the fastest growing areas in the country (as per Census 2022), and with this growth comes a greater requirement for electricity. EirGrid is planning new infrastructure to meet this need, so that electricity supply can be adequately future-proofed.

The Fingal to East Meath Grid Reinforcement is a proposed project to accommodate the continued growth in electricity demand in the region, which is being driven by several sectors.

This includes:

- 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.

The existing electricity infrastructure is at risk of reaching its capacity limit. To address this need, new infrastructure is required to ensure a reliable, sustainable electricity supply to communities, residents, schools and businesses in the area.

Key to this project is the development of a new transmission interface substation and associated connecting circuits in the vicinity of North Dublin which will connect to a substation in East Meath. This project is a critical addition to the electricity network, providing connectivity to the proposed CP1021 East Meath-North Dublin 400 kV underground cable and the East Meath 220 kV substation. The primary function of this substation is to facilitate power flows between the transmission and distribution systems to enable power to be distributed to where it is needed.

The transmission system can be seen as comparable to the motorway and national road network. Whereby, motorways and dual carriageways allow for movement of lots of vehicles; the electricity transmission system allows for power to be transferred most efficiently across regions.

When exiting a motorway or dual carriageway it is onto a roundabout, and from there a network of smaller and more local roads. In this way a transmission interface substation can be seen as analagous to a roundabout where the power is made available for use in the local area by connecting to the distribution system.

Project Benefits

This grid reinforcement will create opportunities by providing additional capacity to supply electricity to areas where it is needed in the future which will enable businesses, schools, hospitals, homes and farms to prosper and grow, and will also create opportunities for facilitating renewable generation.

Economic
Contribute to the regional economy and support increased investment in the area.

Community
Deliver community benefits in the areas that facilitate the project infrastructure.

Local
Helping to meet increasing local transport, employment and housing requirements.

Competition
Apply download pressure on the cost of electricity.

Sustainability
Help Ireland's transition to a low carbon energy future.

Security of supply
Improve security of electricity supply across the island of Ireland.



What is happening now?

The development of this project follows EirGrid's 6-Step approach to Grid Development (see below) which sets out the steps to be taken to identify and implement the best performing solution that meets the needs outlined.

EirGrid's Framework for Grid Development is a 6-step process for all EirGrid's grid development projects, from their conception i.e., identification of a need to develop the electricity transmission grid through to their eventual construction and subsequent energisation.

The graphic below provides an overview of the 6 steps of the Framework Grid Development.

The Fingal to East Meath Grid Reinforcement Project is currently in Step 3. The objective of Step 3 is to identify a best performing technology solution and associated study area, to meet the identified need from the shortlist of options identified previously in Step 1 and Step 2.



Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
How do we identify needs of the electricity grid?	What technologies can meet these needs?	What's the best option and what area may be affected?	**Where exactly should we build?**	Apply for planning permission.	Construct, energise (make live), and share benefits.



Have Your Say

EirGrid is now consulting on substation technology options and considering the best and most deliverable site from within our proposed substation zones. In parallel to this public consultation EirGrid's Agricultural Liaison Officers (ALOs) will be engaging with landowners in the substation zones to discuss potential site locations.

The public consultation will take place from 8th October to 8th November 2024. Submissions can be made either online or by post and the deadline for submissions is Friday 8th November 2024.

We want to hear your views. You can get involved in the consultation and provide feedback in a range of ways:

- You can make a submission via EirGrid's consultation portal here: https://consult.eirgrid.ie/en/consultation/fingal-east-meath-grid-reinforcement-project-step-3-consultation
  or
- Email your submissions to FEM@eirgrid.ie
  or
- You can also submit your response in hard copy via free post to the following address:

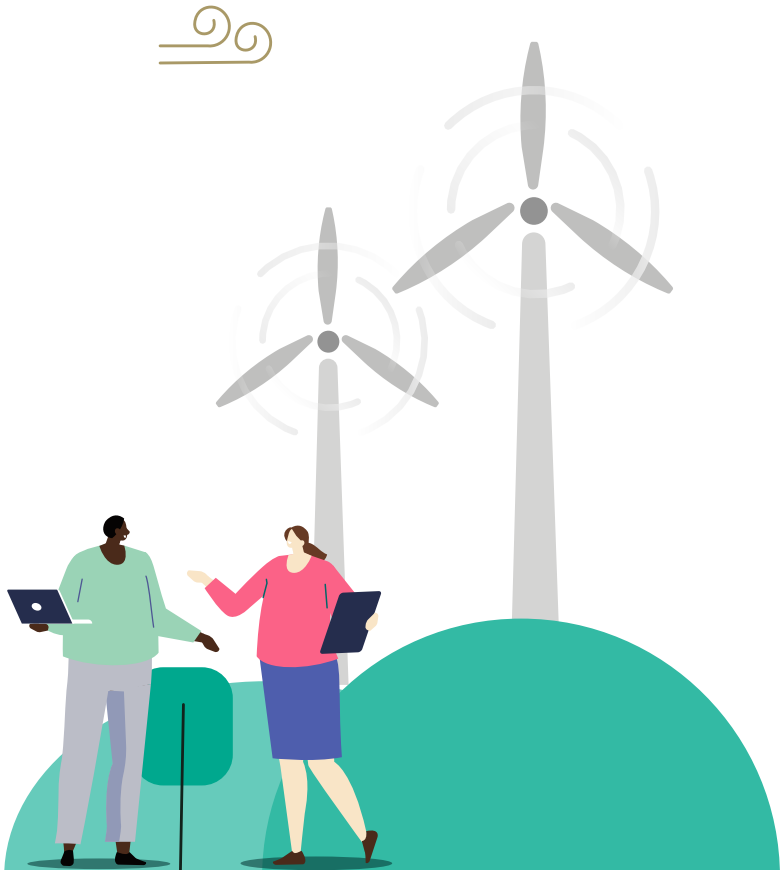
Fingal to East Meath
Grid Reinforcement Consultation,
EirGrid plc,
Freepost FDN 5312,
160 Shelbourne Road,
Ballsbridge,
Dublin 4
D04 FW28

Your feedback will be reviewed and considered and will influence project design, where possible. Throughout the consultation, we are holding a series of face-to-face and online events.

This provides an opportunity for us to present information to you and for you to speak to members of the project team about the project and answer any questions you may have before you submit your views.

If you would prefer to receive any information relating to the consultation through the post, or you need it in another format, please get in touch.

If you have any difficulty writing down your feedback, a member of the Public Engagement team will be able to take comments over the phone.



Information Events

Visit one of our face-to-face public information events being held at the following locations across the proposed routes to find out more and speak to experts within the team.

Wednesday 16th October,
11.00am – 7.00pm
St. Margarets GAA, Ballystrahan, St. Margarets, Co. Dublin, K67 EY27

Tuesday 22nd October,
11.00am – 7.00pm
Coolquoy Lodge, Coolquay Common, The Ward, Co. Dublin, D11 W6NF

Tuesday 29th October,
11.00am – 7.00pm
Roganstown Golf and Country Club, Roganstown, Swords, Co. Dublin, K67 P2E4

Online Webinars

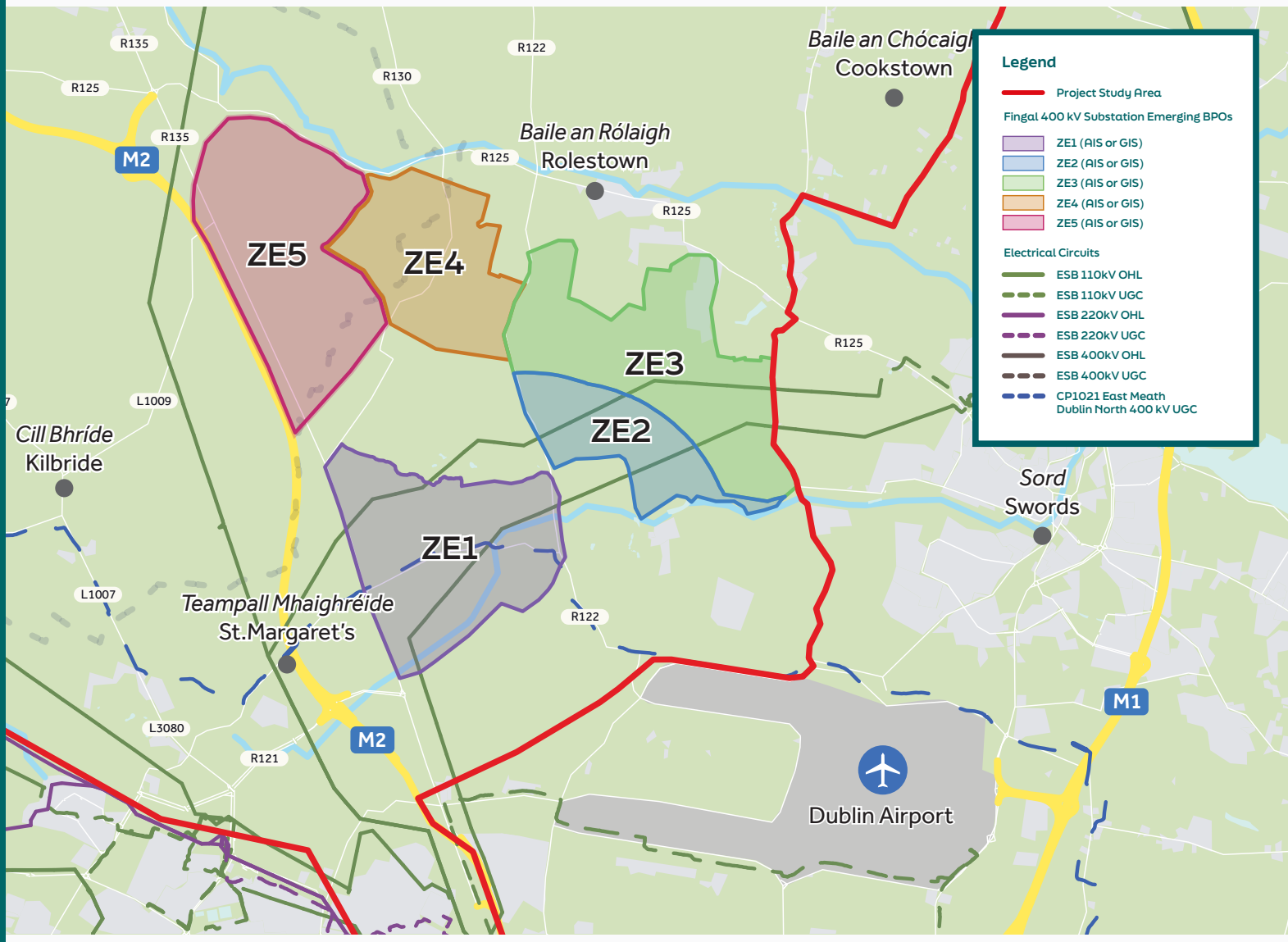
Attend an hour-long online webinar where we will present details of the project followed by an open Q&A.

The webinar will be held on **24th October 2024** at 7.00-8.00pm, on Zoom.

Find out more information and register for this webinar at EirGrid.ie/FingalEastMeath



Substation zones under consideration



EirGrid identified five larger sub-study areas, at the outset, and from these it was determined that two zones were most suitable. These two sub-study areas were selected for further evaluation based on land suitability and connectivity to key infrastructure.

Five substation zones were then identified within the two preferred sub-study areas, following EirGrid's Multi-Criteria Analysis (MCA) Guidelines, scoring sub-criteria to evaluate risks and determine overall performance for each option. This allowed for a more detailed assessment of suitable sites for the technology options being considered.

An overview of the five substation zones under considerations is provided in the table below:

Substation Zone	Description and constraints
Zone 1	The boundaries of Zone 1 are defined by the following constraints which are situated just outside of the proposed zone: • To the North: Wetlands and amenity grasslands. • To the South: Dublin Airport Safeguarding Zone. • To the East: Wetlands, high-pressure gas mains, St. Margaret's Golf & Country Club, bordered by R122. • To the West: Bordered by R135.
Zone 2	The boundaries of Zone 2 are defined by the following constraints which are situated just outside of the proposed zone: • To the North/East: 2 km buffer from the EirGrid's Proposed East Meath-North Dublin 400 kV Underground Cable development. • To the South: Dublin Airport Safeguarding Zone. • To the West: Wetlands, bordered by R122.
Zone 3	The boundaries of Zone 3 are defined by the following constraints which are situated just outside of the proposed zone: • To the North: Residential areas and the town of Rath. • To the South: 2 km buffer from the EirGrid's Proposed East Meath-North Dublin 400 kV Underground Cable development. • To the East: Edge of the Study Area (Greenbelt zones near Swords). • To the West: Bordered by R122.
Zone 4	The boundaries of Zone 4 are defined by the following constraints which are situated just outside of the proposed zone: • To the North: Flood risk areas and proximity to the EirGrid's Proposed East Meath-North Dublin 400 kV Underground Cable development, bordered by R125. • To the South: Residential zones. • To the East: Bordered by R122. • To the West: Shared border with ZE5.
Zone 5	The boundaries of Zone 5 are defined by the following constraints which are situated just outside of the proposed zone: • To the North: Flood risk areas and proximity to the EirGrid's Proposed East Meath-North Dublin 400 kV Underground Cable development, bordered by R125. • To the South: Residential areas and existing solar farm. • To the East: Shared border with ZE4. • To the West: Bordered by M2 and R135 (within boundary).

Substation technologies under consideration

The following two substation technologies have been considered:

- Gas Insulated Switchgear (GIS) Substation; and
- Air Insulated Switchgear (AIS) Substation.

Both technologies have distinct characteristics making them suitable for different scenarios based on land availability, future connection requirements, and regulatory compliance, as summarised in the table below:

Substation technology options	Technology Description	Advantages	Disadvantages	Regulatory Note
Gas Insulated Switchgear (GIS) Substation	Uses sulphur hexafluoride gas (SF6) to insulate the switchgear of an electrical substation, allowing for reduced spacing between conductors (in comparison to AIS technology). Typically housed indoors in dedicated buildings.	Smaller footprint compared to Air Insulated Switchgear (AIS), making it suitable for urban areas with limited land. It also has a lesser visual impact on the landscape.	Limited scope for future connections due to high cost and difficulty in sourcing additional equipment. Requires all necessary equipment for future connections to be installed during initial substation commissioning.	New EU legislation mandates F-gas-free switchgear by 2028 (<145 kV) and 2032 (>145 kV).
Air Insulated Switchgear (AIS) Substation	Uses atmospheric air to insulate the switchgear of an electrical substation.	Greater flexibility for future expansions, as infrastructure doesn't need to be fully built at the initial stage. Equipment is easily sourced and has a short lead time.	This substation option has a significant footprint and therefore requires a larger land area, which can be challenging in rural settings; typically installed outdoors.	

List of options considered at Step 3

Given that the suitability for AIS and GIS technologies was considered when identifying the substation zones described above, all five substation zones are therefore capable of siting an AIS substation or a GIS substation, therefore a total of ten options have been identified for assessment and consultation at Step 3:

- Substation ZE1, AIS technology
- Substation ZE1, GIS technology
- Substation ZE2, AIS technology
- Substation ZE2, GIS technology
- Substation ZE3, AIS technology
- Substation ZE3, GIS technology
- Substation ZE4, AIS technology
- Substation ZE4, GIS technology
- Substation ZE5, AIS technology
- Substation ZE5, GIS technology



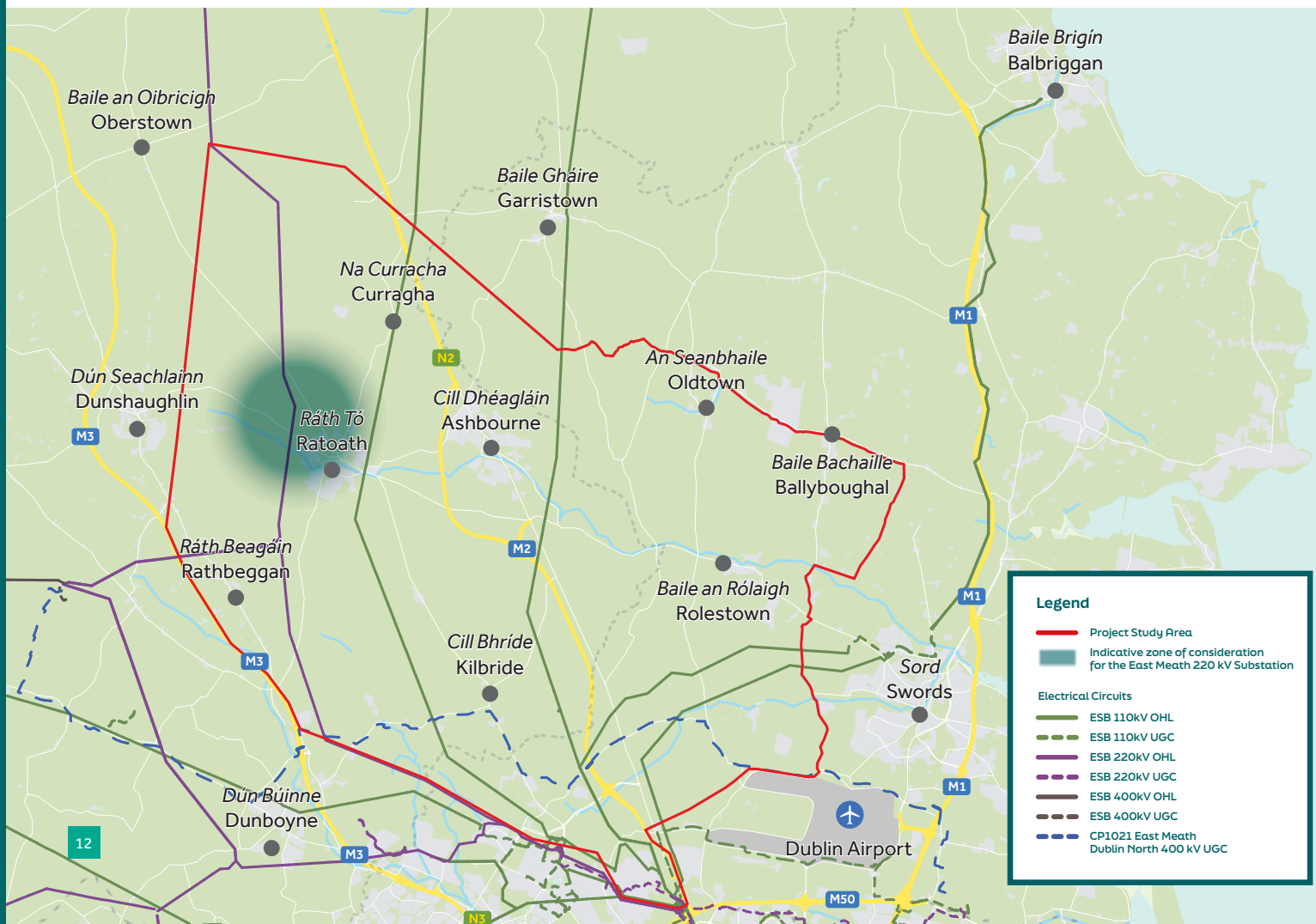
Where is the North Dublin Substation connecting into in East Meath?

To ensure that there is resilience in the Fingal to East Meath Grid Reinforcement Project, additional connections are required from the new substation in North Dublin to the transmission network, at 220 kV and 400 kV.

During the evaluation period in Step 3 of EirGrid's grid delivery process it was established that plans for a proposed 220 kV substation were being developed by a private entity in the vicinity of Ratoath. An indicative zone of consideration for this proposed substation is shown below.

In the public interest and to minimise disruption to landowners and communities, a collaborative approach is being considered where the developer will progress with the provision of a 220kV substation in that region which will then facilitate a connection for the proposed EirGrid Fingal to East Meath Grid Reinforcement Project.

The proposed substation in the vicinity of Ratoath does not therefore form part of this EirGrid consultation process and a separate consultation process is being undertaken by the relevant developer. EirGrid will however continue to liaise with the developer throughout the process to ensure that the objectives of the Fingal to East Meath Grid Reinforcement Project are met.



Community Forum

EirGrid will establish a Community Forum for the Fingal to East Meath Grid Reinforcement Project. The purpose of this forum is to make sure that the voices of the local communities, and those impacted most by our infrastructure, are listened to. The forums provide for open dialogue between the project team and stakeholders interested in the project.

The Community Forums will engage with EirGrid on key project developments such as:

- how we communicate and engage with the public;
- what we need to consider in developing the project; and
- how we can deliver meaningful community benefit to the area where our infrastructure is hosted.

The Community Forum for the Fingal East Meath Grid Reinforcement Project, which will be chaired by an independent facilitator and will act as a consultative body; this will not replace any other engagement and consultation that EirGrid carries out.

To find out more about EirGrid's existing Community Forum please click here

To express your interest in joining one of the community forums for this project, please scan the QR code to complete the Expression of Interest form.

To be kept informed of forum activity throughout this grid development, please visit our website at EirGrid.ie/FingalEastMeath













Community Benefit Fund

We recognise the importance of local communities and businesses who facilitate the upgrading of the electricity transmission network and the community benefit fund reflects this. While the Fingal to East Meath Grid Reinforcement Project is being developed, we will work to support communities as part of our community benefit policy.

A dedicated fund for the Fingal to East Meath Grid Reinforcement Project area will be made available to provide direct benefits to communities who are closest to the new infrastructure. This fund, which is proportional to the scale of the project, supports local good causes and helps communities transform their area. The overall aim is to leave a positive legacy in the communities where the electrical infrastructure is in place.

Work on the community benefit scheme commences if and when a project receives planning permission.

The first step is the appointment of an independent community benefit fund administrator who will work with the Community Forum and EirGrid to co-develop a community benefit strategy.

These funds will provide support to local community groups, not-for-profit organisations and social enterprises that operate in or service communities near the new infrastructure.

Next steps for the Fingal to East Meath Grid Reinforcement Project

Once potential substation zones and sites have been identified for the Fingal 400 kV substation, a further assessment will narrow them down to two-three sites. Subsequently, assessments on connecting circuits will be conducted, including proposed connecting circuits and technologies and potential corridors/routes.

These options will undergo a detailed Multi-Criteria Assessment to identify the Emerging Best Option, which will then be subject to public consultation in Step 4.





Further information

If you have any queries, please contact:



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