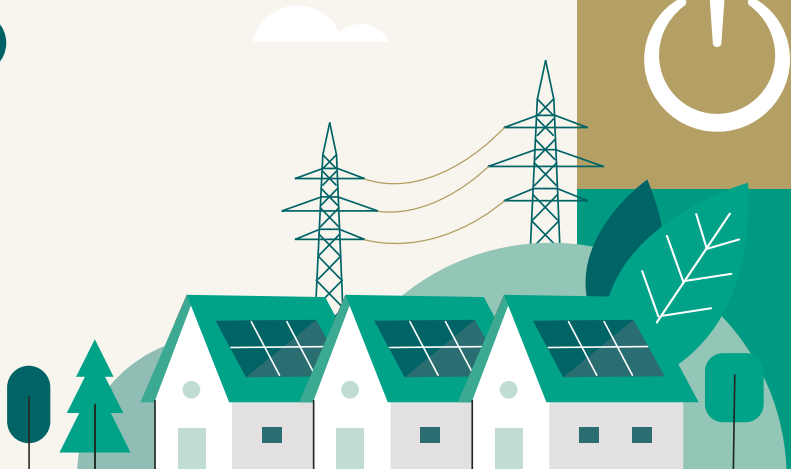
EirGrid

Kildare Dublin Grid Reinforcement Project

Public Information



EirGrid.ie

We were previously in touch in November 2024 to introduce EirGrid and our plans to reinforce the electricity grid in your area. EirGrid is now holding the first phase of consultation of the Kildare Dublin Grid Reinforcement Project.

This first consultation will determine where exactly to locate two new substations in the vicinity of West County Dublin and East Kildare. EirGrid will also seek feedback on the technology options available for these substations.

This brochure presents the proposed options for this first phase of consultation on the Kildare Dublin Grid Reinforcement Project.

It contains information on the project proposals, as well as details of our information events.

You can find details on how you can get in touch with EirGrid and information on the public consultation process, if you wish to make a submission.

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 also 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 Kildare Dublin Grid Reinforcement Project?

The Kildare Dublin 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.

To support renewable targets, we need to significantly increase the amount of electricity generated from renewable sources in our network. This is why we are currently progressing the most ambitious programme of work ever taken on the transmission system in Ireland. This includes reinforcements, upgrades and new infrastructure right across the country.

The existing electricity infrastructure in the East Kildare and South Dublin area 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.

The Kildare Dublin Grid Reinforcement project will improve electricity capacity in this rapidly growing region. This critical development will enhance the grid in the area, providing a continued, secure energy supply which will support local growth and development, as well as helping the country reach its renewable energy targets.

Key to this project is the development of two new transmission substations within the identified area. 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.

EirGrid is currently consulting on the following aspects of the project:

- One new 400/220/110 kV substation near the South-West Dublin/East Kildare border at Steelstown;
- One new 220/110 kV substation near Castlebaggot;
- The best technology options for these substations:
  - Gas Insulated Switchgear (GIS) Substation;

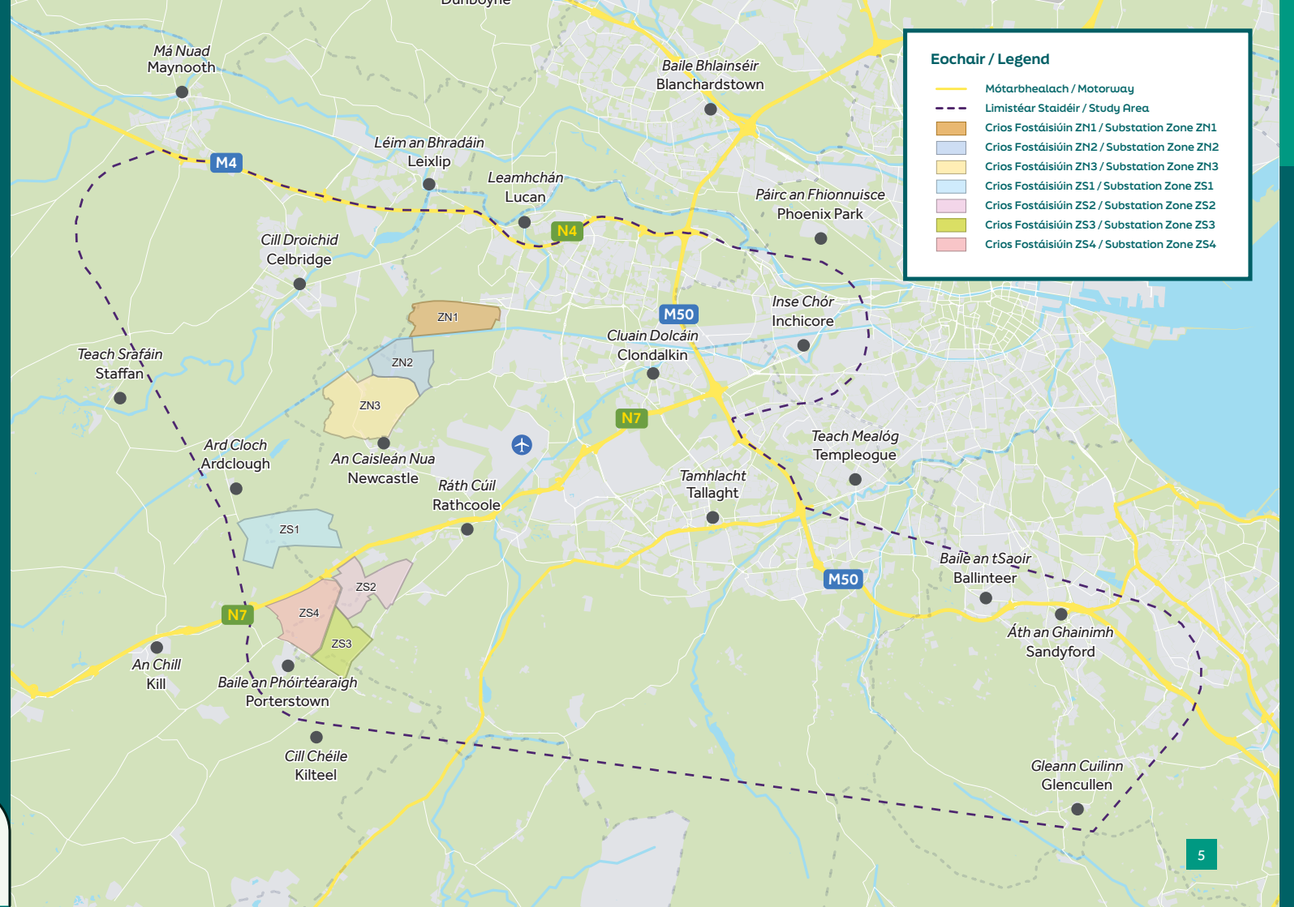
  or
  - Air Insulated Switchgear (AIS) Substation.

The project will also require associated circuits linking the new stations to each other and to existing stations in Maynooth, Inchicore and Carrickmines.

These circuit routes will be subject to public consultation, more information can be found on page 18 of this document.

What is a substation?

An electricity substation is a key part of power grid infrastructure. It takes high-voltage electricity from power stations and reduces it to a safer, lower voltage. This allows the power to then be transmitted to homes and businesses. Substations help to control the flow of electricity, ensuring a safe and stable supply.



Project Benefits

This grid reinforcement will create opportunities by providing additional capacity to supply electricity to areas where it is needed in the future.

This 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

Local

Helping to meet increasing local transport, employment and housing requirements

Sustainability

Help Ireland transition to a low carbon energy future

Community

Deliver community benefits in the areas that facilitate this project infrastructure

Competition

Apply downward pressure on the cost of electricity

Security of supply

Improve security of electricity supply across the island of Ireland

Step One

How do we identify needs of the electricity grid?

Step Two

What technologies can meet these needs?

Step Three

What's the best option and what area may be affected?

Step Four

Where exactly should we build?

Step Five

Apply for planning permission

Step Six

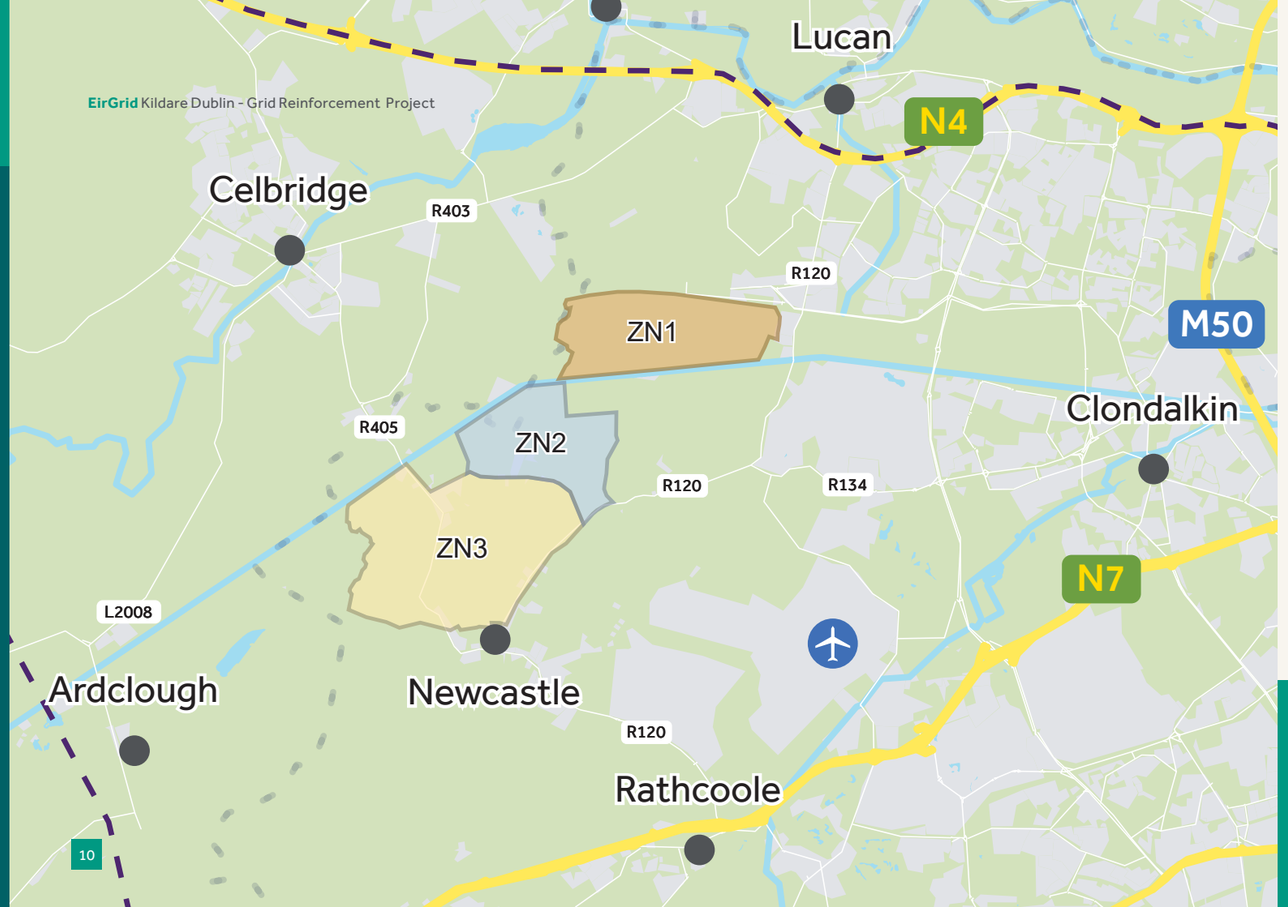
Construct, energise (make live), and share benefits.

What is happening now?

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

EirGrid's Framework for Grid Development is a 6-step process for all of 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 above provides an overview of the 6 steps of the Framework Grid Development.

Dublin 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.



West Dublin Substation

Three zones have been identified by EirGrid as potential locations for a substation in the area. The boundaries of each zone are defined by the following constraints which are situated just outside of each proposed zone:

Substation Zone ZN1

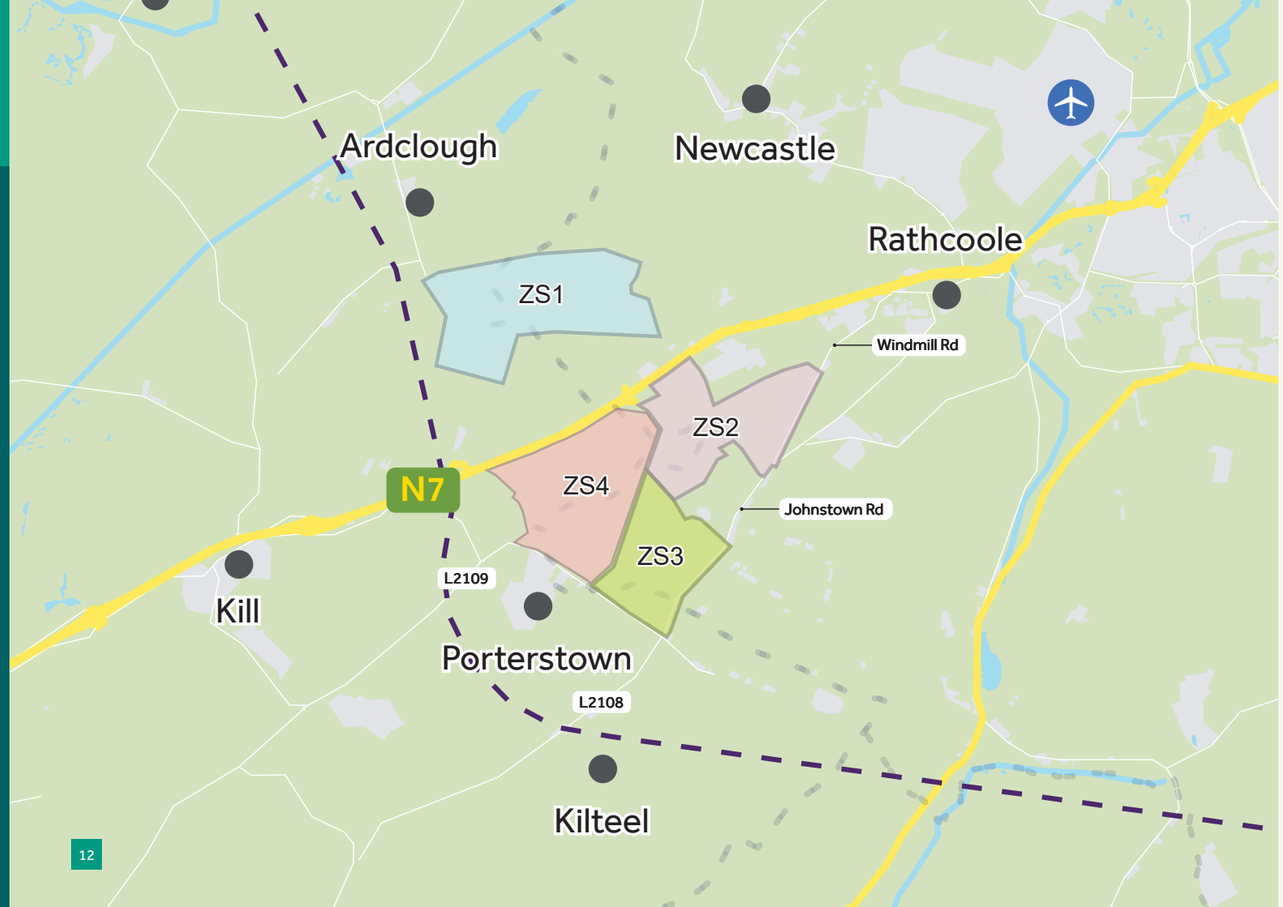
- To the north, the Dublin-Cork railway line.
- To the south, the Grand Canal.
- To the east, the Adamstown area with some businesses and the Lucan Sarsfields GAA Club.
- To the west, the Hillcrest area with some residential properties along Tubber Lane.

Substation Zone ZN2

- To the north and west, the Grand Canal.
- To the south, Loughtown Road.
- To the east, Peamount Hospital and the Grange Castle West Business Park.

Substation Zone ZN3

- To the north, Loughtown Road and Substation Zone ZN2.
- To the east, the R120 borders the zone.
- To the south / southeast, the area of Newcastle.
- To the west, Grand Canal and the area of Skeagh.



South West Dublin / East Kildare Substation Zones

Four zones have been identified by EirGrid as potential locations for a substation in the area. The boundaries of each zone are defined by the following constraints which are situated just outside of each proposed zone:

Substation Zone ZS1

- To the north, the existing Kilteel-Maynooth 110 kV OHL.
- To the south, the existing Dunstown-Maynooth 220 kV OHL and the Castlewarden Golf & Country Club.
- To the east, the residential properties along the L6001 local road.
- To the west, the area of Oughterard.

Substation Zone ZS2

- To the north, the existing Kilteel-Maynooth 110 kV OHL.
- To the south, the existing Dunstown-Maynooth 220 kV OHL and the Castlewarden Golf & Country Club.
- To the east, the residential properties along the L6001 local road.
- To the west, the area of Oughterard.

Substation Zone ZS3

- To the north, Beech Park Golf Club and Zone ZS2.
- To the south, Turf Bog Lane borders the zone.
- To the east, the Johnstown Road (L2003) borders the zone.
- To the west, the existing Carrickmines-Dunstown / Dunstown-Maynooth 220 kV OHL double circuit.

Substation Zone ZS4

- To the north, Zone ZS2.
- To the northwest, the N7.
- To the south, Turf Bog Lane borders the zone.
- To the east, the existing Carrickmines-Dunstown / Dunstown-Maynooth 220 kV OHL double circuit.

EirGrid Kildare Dublin - Grid Reinforcement Project

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.

Gas Insulated Switchgear (GIS) Substation

- Uses gas to insulate electrical equipment, allowing for a compact design.
- Requires less space and has minimal visual impact.
- Typically built indoors in dedicated buildings.
- Limited future expansion - additional equipment must be installed at the start.

Air Insulated Switchgear (AIS) Substation

- Uses air for insulation, making future expansions easier.
- Requires more space.
- Typically built outdoors with a larger footprint.

Each technology has its advantages. The best choice will depend on land availability, future energy needs, and regulations. Your input will help determine the right option for your community.

Technology option 1 - Gas Insulated Switchgear (GIS) Substation

Technology option 2 - Air Insulated Switchgear (AIS) Substation

Have Your Say

The public consultation will take place from Tuesday 20 May to Friday 27 June 2025.

All of the project details, including a project brochure and detailed reports, are available to view and download on our website at EirGrid.com/KildareDublin.

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.

We want to hear your views. Your feedback will be reviewed and considered and will influence design where possible.

You can get involved in the consultation and provide feedback in a range of ways:

- Online at Consult.EirGrid.ie
- Via email to KildareDublin@EirGrid.com
- Via feedback form at one of our in-person information events
- By post to:

  Kildare Dublin Grid Reinforcement Project

  EirGrid PLC
  The Oval
  160 Shelbourne Road
  Dublin 4, D04 FW28

The deadline for submissions is Friday 27 June 2025

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

Throughout the consultation, EirGrid is holding a series of drop-in information events.

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

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.

Location	Date	Time
Rathcoole Community Centre	10th June	12 - 8pm
Lucan Public Library	18th June	12 - 8pm
St Finian's Community Hall, Newcastle	24th June	1 - 8pm

Future Works

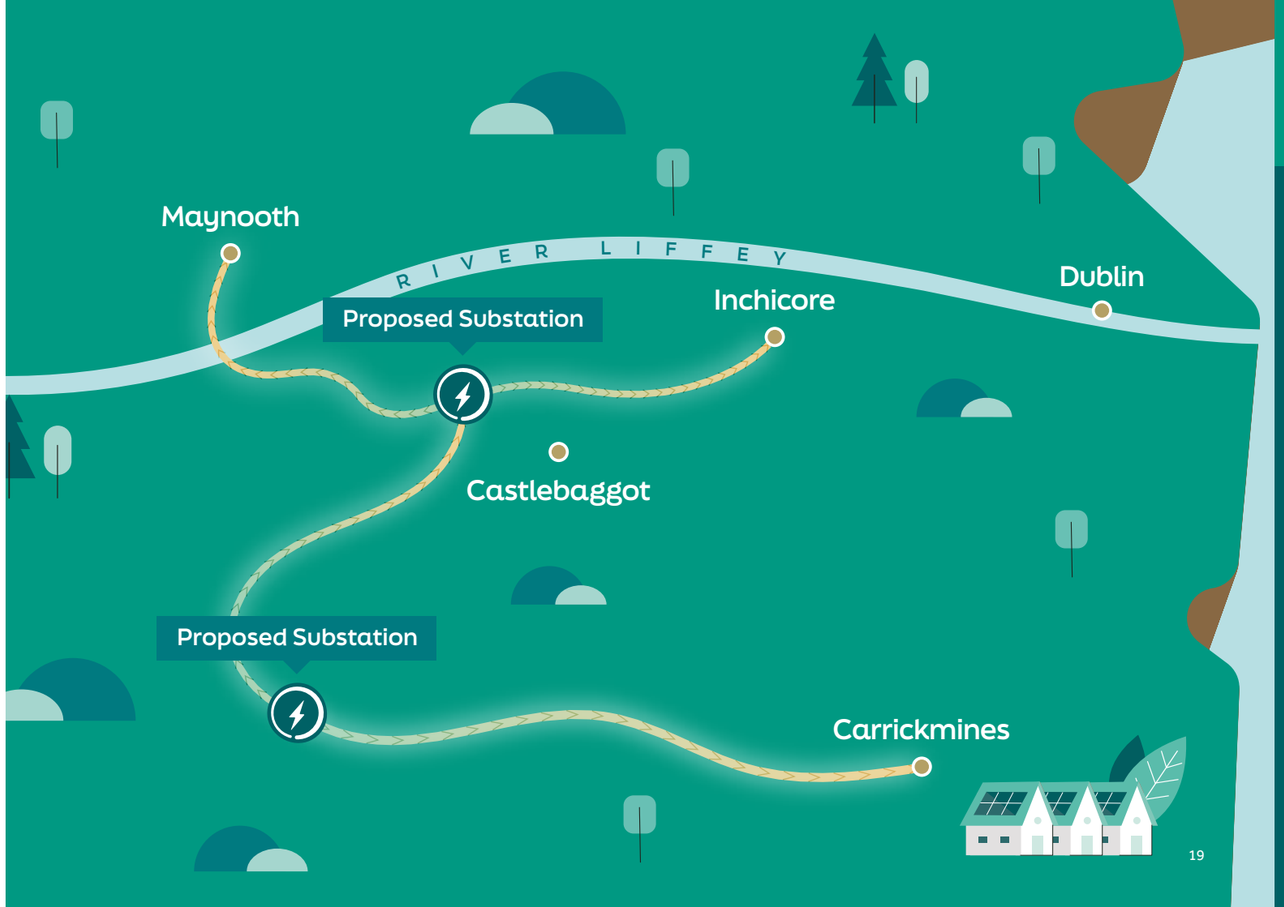
This document outlines the consultation for the first phase of the Kildare Dublin Grid Reinforcement, regarding two substations that will form a central point for the project. Once potential substation zones and sites have been identified for each of the two required substations, a further assessment will narrow them down to two or three sites.

Simultaneously, there is work required to reinforce the grid within the study area. As Ireland's population and energy needs grow, a reinforced grid ensures that the system can handle increased demand.

Reinforcing the grid means improving the current network of cables, transformers, and other infrastructure that delivers electricity to homes and businesses. This process involves upgrading and expanding the existing system to ensure it can handle more power, be more resilient, and support future energy needs.

What happens next?

Once the sites for the two required substations have been narrowed down, they will need to be connected to the grid. The the project team will conduct assessments on circuits that will connect these substations to the electricity grid. A public consultation to determine the appropriate technology options and route options for these connecting circuits will then take place.



EirGrid and the Community – how we will engage with you

Community Forum

EirGrid will establish a Community Forum for the Kildare Dublin 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;
- how we can deliver meaningful community benefit to the area where our infrastructure is hosted.

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

Community Benefit Fund

EirGrid recognises the importance of local communities and businesses who facilitate the upgrading of the electricity transmission network and host grid infrastructure. While this project is being developed, we will work to support communities as part of our community benefit policy.

A dedicated fund for the Kildare Dublin Grid Reinforcement Project area will be made available to provide direct benefits to communities who are closest to the new infrastructure. Work on the community benefit scheme commences if and when a project receives planning permission.

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.

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.

To learn more about EirGrid's Community Benefit Fund policy, visit our website at EirGrid.ie/Community/.

Further information:

If you have any queries, please contact:

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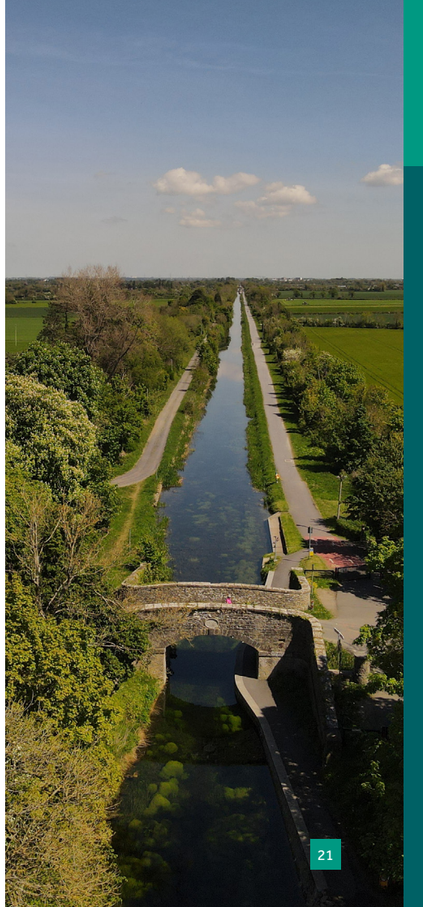


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