



# East Meath-North Dublin Grid Upgrade

Capital Project 1021  
Step 3 Update Brochure  
Spring 2022



Delivering a cleaner energy future

# Who are EirGrid – and what do we do?

EirGrid is responsible for the safe, secure and reliable supply of electricity – now and in the future.

We develop, manage and operate the electricity transmission grid. This grid brings power from where it is generated to where it is needed throughout Ireland. We use the grid to supply power to industry and businesses that use large amounts of electricity. The grid also powers the distribution network and supplies the electricity you use every day in homes, businesses, schools, hospitals and farms.

## About this update.

This update is for stakeholders, communities, landowners and members of the public who want to keep up to date about the East Meath-North Dublin Grid Upgrade. It tells you about:

- the latest developments with the East Meath-North Dublin Grid Upgrade;
- our six-step approach to developing the electricity grid;
- the technology we will use for this project;
- what happens next; and
- where to find more information.

## Key finding

Following technical analysis and public engagement in 2020, the option chosen for this grid upgrade is a 400kV underground cable from Woodland substation in County Meath to Belcamp substation in north Dublin. How this option was chosen is described later in the brochure.

We will hold a public consultation in Autumn 2022 on potential route options for this underground cable.



# What is the East Meath-North Dublin Grid Upgrade?

The East Meath-North Dublin Grid Upgrade will strengthen the electricity network in the east of Meath and the north of Dublin to improve the transfer of power across the existing transmission network.

The project will add a high-capacity 400 kV underground cable electricity connection from Woodland substation near Batterstown in County Meath to Belcamp substation near Clonsaugh in north Dublin.

We need to upgrade the network to:

- address the increased electricity demand in East Meath and north Dublin;
- reduce the use of fossil fuels for electricity generation in Dublin;

Broadly speaking, the project will support securing the electricity supply and strengthening the network in anticipation of the future development of renewable energy, onshore and offshore.

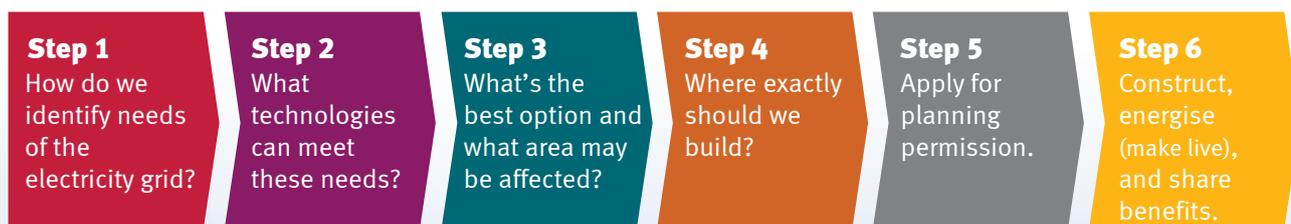
## Ireland's Climate Action Plan 2021

The Climate Action Plan 2021 calls for up to 80% of Ireland's electricity to come from renewable energy sources by 2030. The Plan outlines that additional electricity generation and transmission infrastructure will be critical to achieving the renewable energy and emissions targets.

# What is our six-step approach to developing the electricity grid?

We have a six-step approach to developing the electricity grid and gathering and understanding our stakeholders' views during this process.

Our 'Have Your Say' publication outlines our commitment to engage with, and listen to, stakeholders. Our 'Public Engagement Strategy' publication explains how we engage with our stakeholders in the development of projects like this. You can read both publications at [www.eirgrid.ie](http://www.eirgrid.ie)



**Figure 1: Our six-step approach to developing the electricity grid**

This project is now in Step 3. Working in collaboration with all key stakeholders, we plan to move to Step 4 in Autumn 2022, where we will examine different route options to decide exactly where to put the underground electricity cables. We will hold a public consultation to get your views on the various route options being assessed. We will also establish a community forum to ensure that the concerns and views of local community, resident and business groups are heard. More information about this is available on page 10.



**Figure 2: Our six-step timeline for the East Meath – North Dublin Grid Upgrade**

# What has happened so far?

**Step 1:** In 2017, we confirmed the need for the East Meath-North Dublin Grid Upgrade.

**Step 2:** In 2020, we compiled a shortlist of seven technical options and held a public consultation on these.

The seven options were:

- Woodland – Corduff 400 kV overhead line circuit
- Woodland – Corduff 400 kV underground cable circuit
- Woodland – Corduff 220 kV overhead line circuit
- Woodland – Finglas 220 kV overhead line circuit
- Woodland – Finglas 400 kV underground cable circuit
- Woodland – Finglas 400 kV overhead line circuit
- Woodland – Belcamp 400 kV overhead line circuit

We assessed these options further under the following five categories:

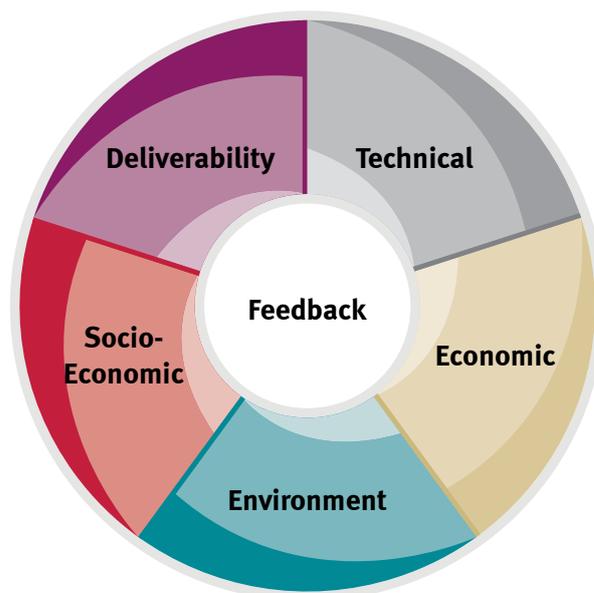
1. Technical aspects; Compliance with Electricity Standards/ Operational Aspects,
2. Economic factors; Project Implementation costs,
3. Environmental factors; Biodiversity / habitats/ ground conditions/ archaeology,
4. Socio-economic factors – such as the local economy and local amenities; and
5. Deliverability factors – such as timeline and potential risks.

Based on the evaluation and on feedback from the public consultation held in 2020, the best performing options at this stage of the project were the 400 kV options that connect Woodland substation to Finglas or Belcamp substations. As our standard practice is to examine both overhead and underground cable options, we added an additional option to the shortlist – a new Woodland to Belcamp 400 kV underground cable circuit.

In 2021, we published this assessment report on our project website, and it can be found at [www.eirgrid.ie/EastMeathNorthDublin](http://www.eirgrid.ie/EastMeathNorthDublin).

At the end of Step 2, we shortlisted four best-performing technical options to examine further in Step 3. These were:

- Woodland to Finglas 400 kV overhead line
- Woodland to Finglas 400 kV underground cable
- Woodland to Belcamp 400 kV overhead line
- Woodland to Belcamp 400 kV underground cable



**Figure 3: The five categories we use to assess options with your feedback**

**Step 3:** In 2021, we carried out feasibility studies on the four best-performing technology options identified in Step 2. These were finalised in March 2022.

The studies found that three of the four technical options involved significant challenges and are not being progressed further. These include:

- **In Finglas** – There is not enough physical space at the existing station to support the additional equipment required for either a 400 kV overhead line or underground cable. The restricted physical space on this brownfield site impacts both this and future developments at this location. Also, using Finglas would require lengthy equipment outages which are difficult to grant while ensuring security of power supply to the Dublin area.
- **In Belcamp** – There were a number of constraints identified at this station. From an environmental perspective, an overhead line would have to cross the Malahide Estuary, a special area of conservation and special protection area.

**We will proceed into Step 4 with the Woodland – Belcamp 400 kV underground cable circuit.** In Step 4, we will examine the route options for this cable. We will hold a public consultation in Autumn 2022 to get your feedback on these.

## Benefits of the East Meath-North Dublin Grid Upgrade



### Competition

Apply downward pressure on the cost of electricity.



### Sustainability

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



### Security of Supply

Improve electricity supply for Ireland's electricity consumers.



### Economic

Contribute to the regional economy and support foreign direct investment.



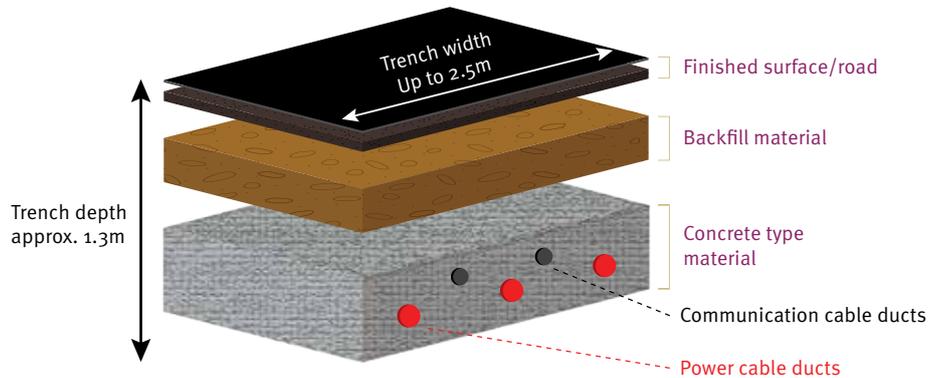
### Community

Deliver community benefit in the areas that facilitate the project infrastructure.

# What is a 400kV underground cable?

The East Meath-North Dublin Grid Upgrade will use High Voltage Alternating Current (HVAC). This form of electricity transmission is used in electricity networks, both internationally and in Ireland. Our studies have found that a 400 kV underground cable between the Woodland and Belcamp substations is the most suitable for this project. The cable will be buried about 1.3 metres below the road surface.

Figure 4 shows what a typical underground cable arrangement would look like.



**Figure 4: Typical HVAC underground cable duct arrangement**

As this project progresses, we will do everything possible to minimise disruption caused during the construction phase of the project by engaging with local communities, businesses and landowners.

Our cable installation works will be subject to permits granted by the local authority and will be managed in accordance with a traffic management plan, to ensure the least traffic disruption in the area.

The following photos show what construction may look like.



**Figure 5: A typical cable duct installation in the road**



**Figure 6: A typical jointing bay where cables are connected**



**Figure 7: Cables being pulled into the ducts and jointing bay**



**Figure 8: A typical passing bay in operation during cable jointing**

# What is the study area?

The map below shows the proposed area in which the electricity infrastructure for the East Meath-North Dublin Grid Upgrade will be built.

The routing for the underground cable will be identified at the end of Step 4, following further studies and public consultation.



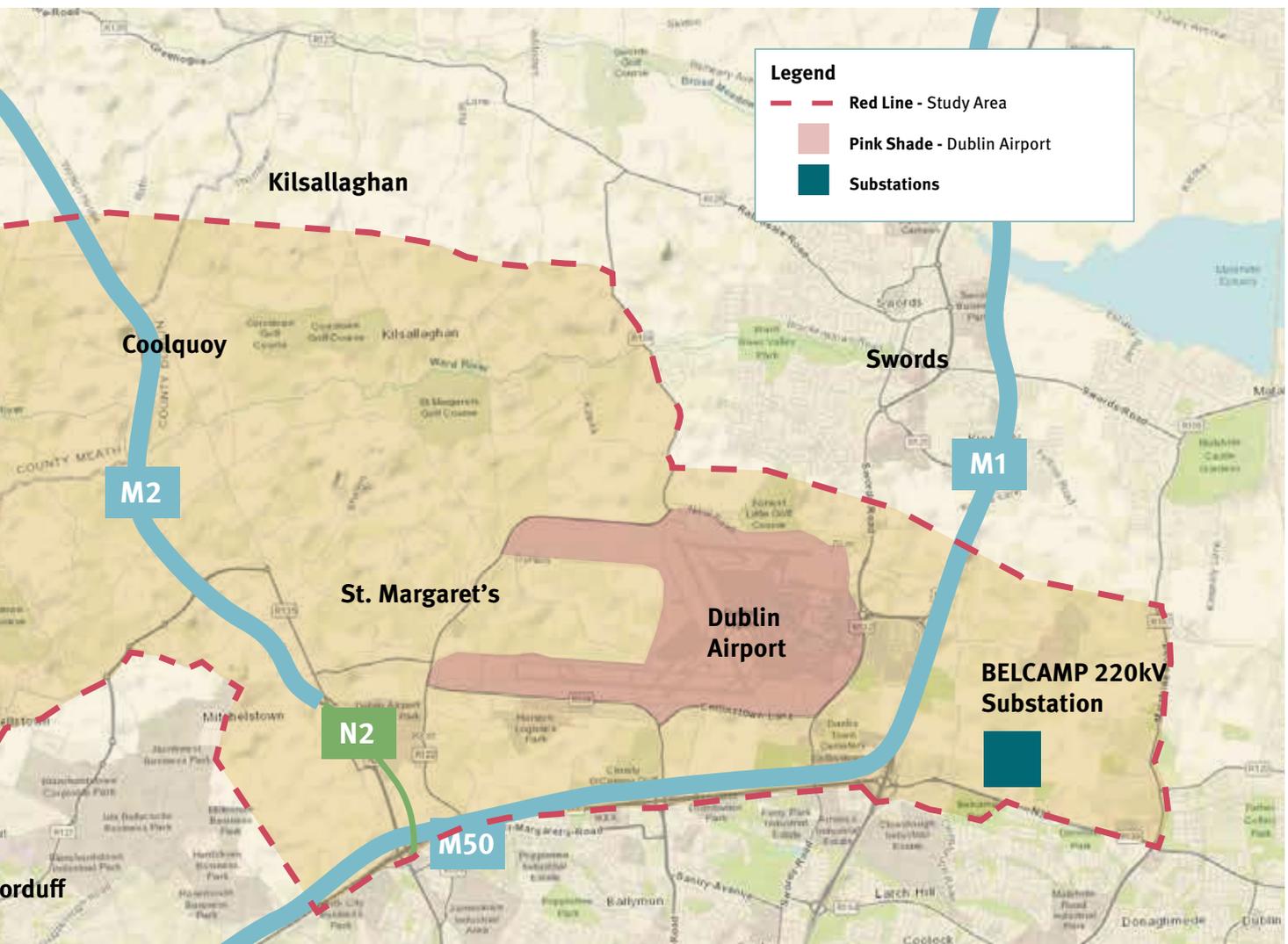
## Woodland substation

Woodland substation is of national strategic importance within the electricity transmission grid.

We recognise that this substation and local communities in this area are facilitating a wide range of electricity infrastructure projects, including:

- the Moneypoint-Woodland connection;
- the East West Interconnector;
- the planned Kildare-Meath Grid Upgrade; and
- the planned North South Interconnector.

We are committed to working with businesses, local communities, landowners and all key stakeholders, to minimise the disruption caused with developing these projects. More information about these projects is available at [www.eirgrid.ie](http://www.eirgrid.ie)



## Belcamp substation

Belcamp 220kV substation is an existing substation located in Dublin (along the R139).

It has been chosen as the destination for this 400kV circuit from Woodland substation.

This means a new 400kV substation needs to be built, and it is proposed that this will be located immediately next to the existing Belcamp 220kV substation.

Belcamp substation is also of strategic importance within the electricity transmission grid, as it will be required to accommodate further grid development projects.

# What is the East Meath-North Dublin Grid Upgrade Community Forum?

## What is the Community Forum?

The purpose of the Forum is to ensure that stakeholder and community views are understood and properly considered during project delivery, ensuring that the voices of the local communities and those impacted most by our infrastructure are listened to. The Forum provides for open dialogue between stakeholders with interests in the project and the project team.

We are preparing to set up an East Meath-North Dublin Grid Upgrade Community Forum. The Forum will be independently chaired.

## Membership of the Forum:

Membership of the Forum will consist of representatives from local resident and community associations, along with voluntary and sporting organisations in the project area. Membership is also extended to local public representatives.

The forum will act as a consultative body during the project and will advise us on:

- how we communicate and engage with the public;
- what we need to consider when developing the route options; and
- what benefits we can provide for local communities along the route (for example, walkways, playing pitches, playgrounds, and so on).

## Can I join the community forum?

We will hold an information meeting about the community forum in June 2022. We will then seek expressions of interest from potential forum members publicly and promote this through local media, our website and the public participation networks (PPNs) in Meath and Fingal.

PPNs are networks of community and voluntary groups in each local authority area. If your group is not already a member of your local PPN, we can help you to register with them. If you would like to be kept informed about this, please email [EastMeathNorthDublin@eirgrid.com](mailto:EastMeathNorthDublin@eirgrid.com)



**Step 1** Completed identifying needs of the grid.

**Step 2** Completed identifying the technologies that can meet these needs.

**Step 3** What's the best option and what area may be affected?

**Step 4** Where exactly should we build?

**Step 5** Apply for planning permission.

**Step 6** Construct, energise (make live), and share benefits.

## Step 3 At a glance

### What are the next steps and how can I keep up to date?

Having chosen the best technical option, a 400kV underground cable, between Woodland and Belcamp substations, we are now in the final stages of completing Step 3 of the East Meath-North Dublin Grid Upgrade.

In Step 4, we will identify potential routes for this underground cable. At the end of the summer, we will hold a public consultation to get your feedback on the best route for the cable.

### How do I keep up to date?

You can find detailed project information and updates at: [www.eirgrid.com/EastMeathNorthDublin](http://www.eirgrid.com/EastMeathNorthDublin) and on our social media pages.

### Who can I contact?

If you would like to get more information, register to receive update emails or give feedback on this project, you can:

- email **EastMeathNorthDublin@eirgrid.com**
- contact your local community liaison officer, Eoghan O'Sullivan, on 087 247 7732
- write to East Meath-North Dublin Project, EirGrid, Freeport FDN 5312, 160 Shelbourne Road, Ballsbridge, DO4 FW28.





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