# East Meath-North Dublin

# Step 4:
# Best Performing Option

September 2023

EirGrid

# Who are EirGrid and What Do We Do?

State-owned operators of Ireland's electricity transmission grid.

We send power from where it is generated to where it is needed.

We operate the wholesale electricity market.

We operate electricity interconnectors with neighbouring countries.

We do not generate electricity.

We have a new role offshore.

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# Benefits of the East Meath-North Dublin Grid Upgrade

## Competition

Apply downward 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 for Irish homes and businesses

## Economic

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

## Community

Deliver community benefit in the areas that facilitate the project infrastructure

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# The project is in Step 4

## Step One

How do we identify needs of the electricity grid?

**2017:**

Confirmed the need for the East Meath-North Dublin Grid Upgrade

## Step Two

What technologies can meet these needs?

**2020:**

Compiled a shortlist of 7 technical options for this upgrade.

Shortlisted four technical options.

## Step Three

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

**2021:**

Reconfirmed the project need and carried out feasibility studies.

**2022:**

Identified the 400 kV underground cable option from Woodland to Belcamp as the Best Performing Technical Option to progress for this project.

## Step Four

**Where exactly should we build?**

**Sept - Nov 2022:**

Public consultation and assessments on four route options.

**March 2023:**

Announcement of the Emerging Best Performing Option

**September 2023:**

Announce the Best Performing Option (BPO)

## Step Five

Apply for planning permission.

**Q1 2024**

## Step Six

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

**2024/5:**
Design / Procurement

**2026/9:**
Construction

**Q4 2029:**
Energisation

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# What is the East Meath-North Dublin Grid Upgrade

A high-capacity 400 kV underground cable electricity connection between Woodland Substation in Meath and Belcamp Substation in Dublin.

We need to upgrade and strengthen the network to:

- Improve the transfer of power
- address the increased electricity demand
- reduce the use of and reliance on fossil fuels
- facilitate further development of renewable energy
- assist in achieving climate action targets

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# EirGrid's Six-Step Approach to Developing the Electricity Grid

| Step One | Step Two | Step Three | Step Four | Step Five | Step Six |
|---|---|---|---|---|---|
| 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. |

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# Step 4 Studies

- **Technical aspects:** compliance with electricity standards and other operational aspects.
- **Economic factors:** project implementation costs.
- **Environmental factors:** topics including biodiversity, landscape, archaeology, and water quality.
- **Socio-economic factors:** such as the local economy and local amenities.
- **Deliverability factors:** such as timeline and potential risks.


EirGrid Assessment Criteria

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# What is the Best Performing Option?

This route is approximately 38 kilometres in length with an estimated off-road section of 11 kilometres.
The majority of the route follows existing roads.
The wider bubble areas are off-road corridors where we are continuing to investigate an exact off-road route.
Minor route refinement work will be required at Step 5, following additional design, surveys, engagement, and assessment.

# Emerging Best Performing Option (EBPO) to Best Performing Option (BPO)

- To reach our BPO we have to confirm our EPBO findings and reduce our refinement areas. There were five areas for further refinement shown in our EBPO.

- Further discussions were required with relevant stakeholders and landowners, surveys and assessment work to determine the best location for the cable route.

- The BPO process identified several areas where changes would result in an improved route. Shown in the following slides.

- The changes made for reducing potential environmental impacts or avoiding private lands. As a result, the route located within three of the five wider areas added at the EBPO phase, can now be determined.

- The route within the retained refinement areas at the M3 motorway crossing and between M1 to Belcamp is subject to ongoing engagement with key stakeholders and local landowners and will be confirmed during Step 5.

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# EBPO to BPO: M3 Crossing


- Feasible route options have been developed at this location
- Route remains subject to ongoing engagement with key stakeholders and local landowners and will be confirmed during Step 5.


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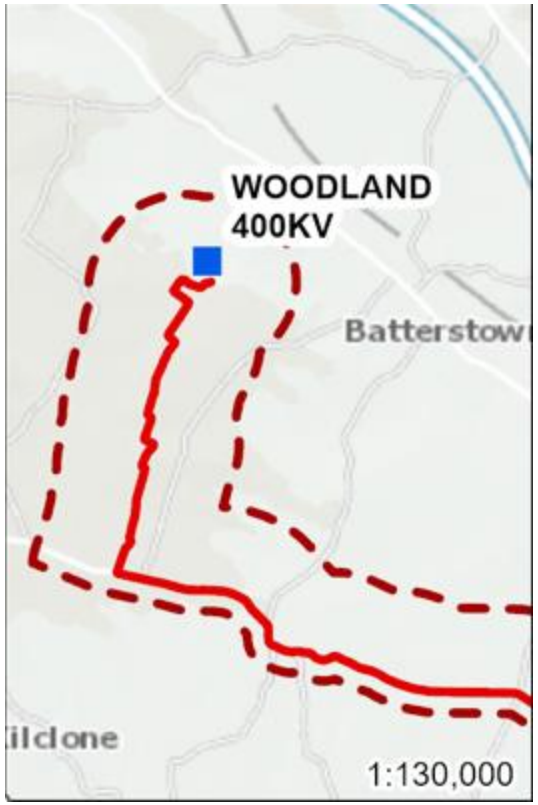
# EBPO to BPO: Woodland to R156


- This is now an off-road section approximately 3km in length through agricultural land.
- Local road network in this area was technically challenging due to two existing masonry arch road bridges on the Red Road that were unsuitable.
- Minimise the risk of disrupting access to the Woodland substation.
- The BPO also optimises a corridor shared with CP0966, another EirGrid project.

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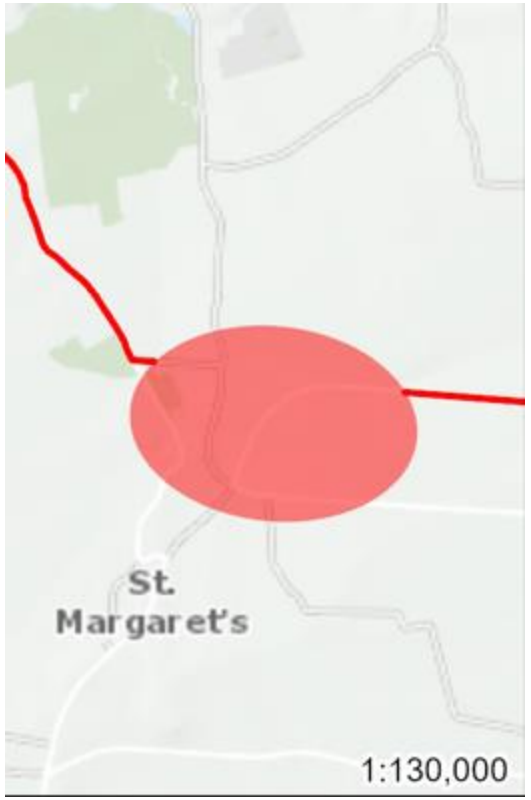
# EBPO to BPO: St. Margaret's




- This is now an off-road section approximately 0.5km in length through agricultural land.
- The use of the local road network in this area was considered to be technically challenging due to potential risk of disruption to strategic infrastructure associated with the airport (i.e. runway landing lights).
- An off-road corridor will minimise risk.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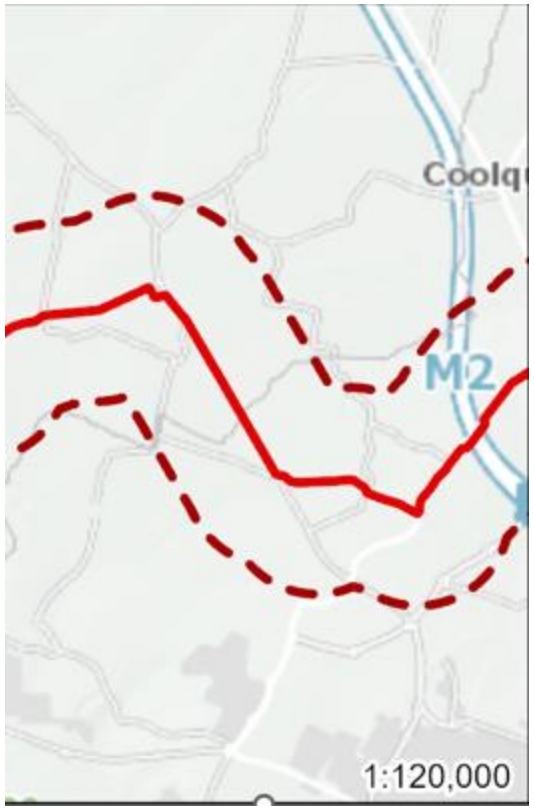
# EBPO to BPO: Hollystown


- This is now an off-road section approximately 1.4km in length through agricultural land.
- The use of the local road through the village of Hollystown was considered challenging from a deliverability perspective due to potential disruption during construction and the presence of numerous existing utilities.
- An off-road corridor will minimise disruption to the local community, businesses and road users.

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# EBPO to BPO: M1 to Belcamp


- This is now an off-road section approximately 3.5km in length through agricultural and industrial land.
- The use of the local road (Stockhole Lane) was identified to perform less successfully against the other options due to potential disruption during construction and the presence of numerous existing utilities.
- An off-road corridor will minimise disruption to the local community, businesses and road users.
- Feasible route options have been developed at this location however the route remains subject to ongoing engagement with key stakeholders and local landowners and will be confirmed during Step 5.


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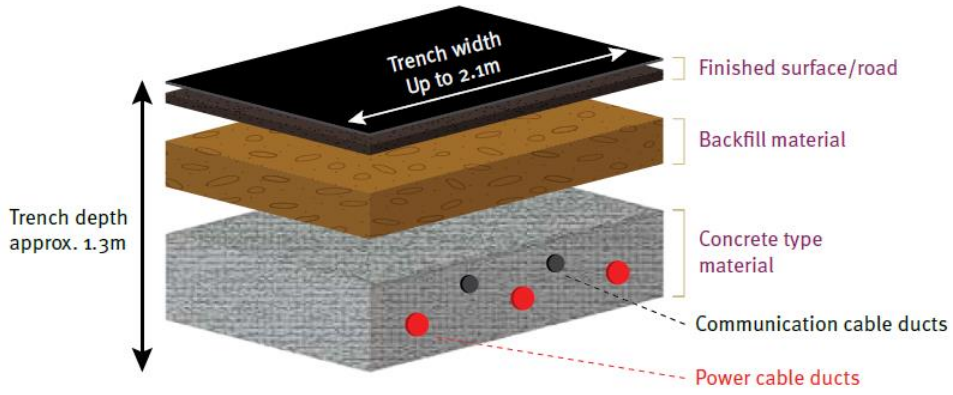
# About the 400kV underground cable?

- The East Meath-North Dublin Grid Upgrade will use High Voltage Alternating Current (HVAC).
- This form of electricity transmission is used in electricity grids, internationally and in Ireland.
- The cable will be buried about 1.3 metres below the road surface.




Typical HVAC cable duct underground arrangement

A typical cable duct installation in the road

A typical jointing bay where cables are connected

Cables being pulled into the ducts and jointing bay

A typical passing bay in operation during cable jointing

# What happens next ?

The necessary technical studies, design work and environmental studies are progressing.

The final refinement of the best performing route is planned to conclude in autumn of 2023.

The project will then progress towards submission of a planning application to An Bord Pleanála in Step 5 in Q1 2024.

**We will continue to:**

- engage with residents, landowners, community groups and other stakeholders along the red route;
- carry out more technical studies and onsite investigations;
- engage with local authorities, elected representatives, specialist representative groups, the Community Forum, and environmental and planning agencies.

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# Communications and Engagement Plans

## September and October 2023

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# Media and Communications

Plans include the following:

- Local press
  [Dub Gazette, Dub People, Meath Chronicle, Herald]
- Local radio
  [98 FM, Spin, FM104, LMFM, Sunshine, Raidio na Life]
- Targeted social and digital media (organic and paid)
  [Meta, programmatic display, Tuairisc, LinkenIn, Twitter]
- Information webinar


## East Meath-North Dublin Grid Upgrade

### See the Best Performing Option

EirGrid is upgrading the electricity network in east Meath and north Dublin.

Following further assessments, and thanks to your valued input, we can now confirm the Best Performing Option for the new 400kV underground cable between Woodland substation in Co. Meath and Belcamp substation in north Dublin.

This upgrade will help us to provide you, and future generations, with a strong, secure and sustainable supply of electricity.

To find out more about the finalised route,
visit EirGrid.ie/eastmeathnorthdublin or scan the QR code above.


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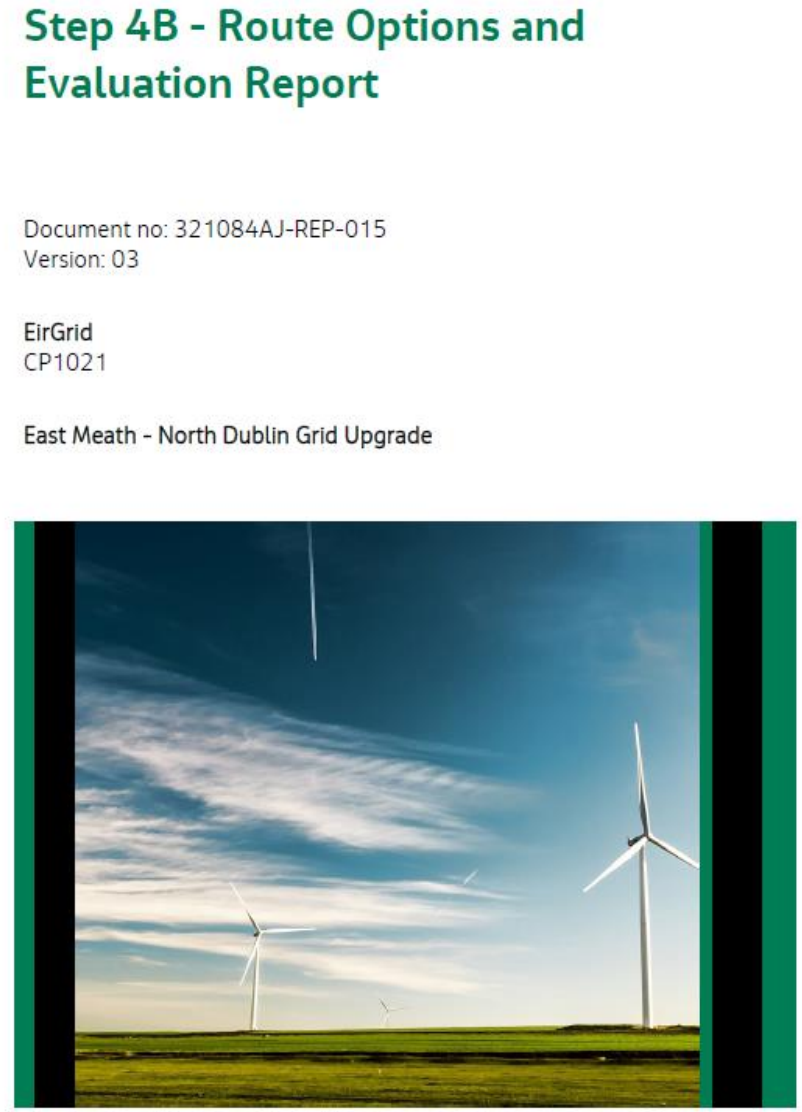
# Media and Communications

Information available on the East Meath-North Dublin project website:

- Project update brochure


- Engagement summary report
- Technical 4B report
- Interactive BPO route map

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# Stakeholder Engagements

- Community Forum
- County Councils
- Chambers of Commerce
- Public Participation Networks
- Elected Representatives
- National Schools
- Door-to-door

# Stay in touch with us

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# Thank You!

## East Meath-North Dublin
## Grid Upgrade

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