



Capital Project 966

Spring 2019



EIRGRID

The current. The future.



What is Capital Project 966?

Capital Project 966 is a proposed electricity development that will help to transfer power to the east of the country and distribute it within the network in Meath, Kildare and Dublin.

The project will help meet the growing demand for electricity in the East. This growth is due to increased economic activity and the planned connection of new large scale IT industry in the region.

A significant number of Ireland's electricity generators are located in the South and South West. This is where many wind farms and some modern, conventional electricity generators are located. This power needs to be transported to where it is needed.

Power is currently transported cross-country on two high-voltage power lines from Moneypoint in Clare to the Dunstown substation in Kildare and Woodland substation in Meath.

Transporting increased amounts of electricity on these two lines could cause problems that would affect the security of electricity supply throughout Ireland, particularly if one of the lines is lost unexpectedly.

To solve this emerging issue, we need to strengthen the electricity network between Dunstown and Woodland.

Progress to Date

The project has now completed *Step Two* of our six-step process for developing electricity transmission projects. The aim of *Step Two* was to create a shortlist of best-performing technical solutions that would be taken forward for further detailed investigation and evaluation.

The shortlist of solutions to be evaluated in *Step Three* are:

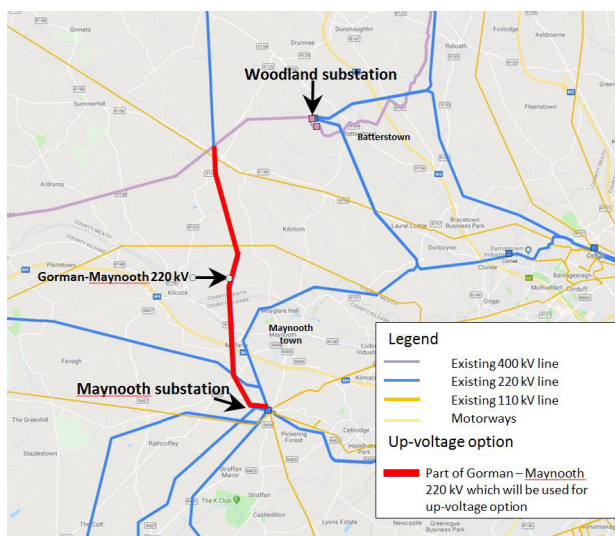
1. Dunstown – Woodland - Uprate of existing 220 kV overhead line to 400 kV
2. Dunstown – Woodland - New 400 kV overhead line
3. Dunstown – Woodland - New 220 kV underground cable
4. Dunstown – Woodland - New 400 kV underground cable

The Uprate Option

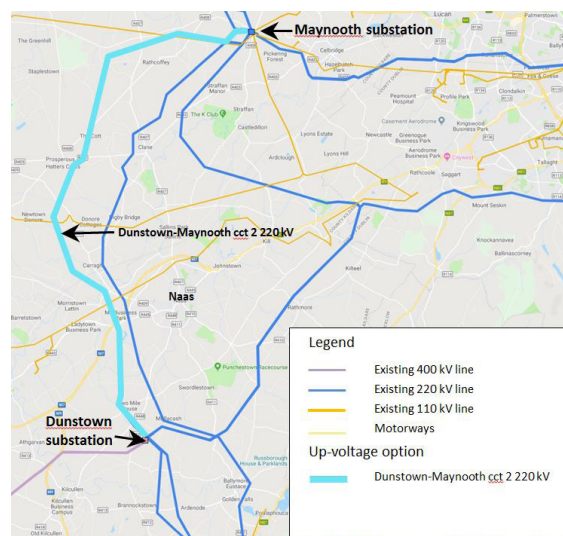
The *Step Two* evaluation has resulted in a refinement of the option involving the uprate of existing 220 kV overhead lines to a voltage of 400 kV (option 1 above).

We evaluated a number of 220 kV lines in Meath and Kildare and have selected the two best performing lines. The lines are the Dunstown – Maynooth 220 kV line that runs through Kildare and part of the Gorman – Maynooth 220 kV line that runs through both Meath and Kildare.

The routes of these two lines are shown below:



Gorman – Maynooth Line



Dunstown – Maynooth Line

How Did We Reach this *Step Two* outcome?

We originally evaluated a longlist of 15 possible solutions using two criteria – technical and economic performance. This resulted in the publication in November 2018 of a refined list of five best-performing options.

A 10-week consultation period, starting in November 2018 and finishing in early February 2019, gathered feedback on the five technology options. No technology options were removed or added as a result of the consultation.

Most of the responses declared a preference for either the underground option or the uprate option.

The refined list was further evaluated using an expanded set of criteria. As well as technical and economic criteria, we added environmental, deliverability and socio-economic considerations.

The multi-criteria evaluation of the refined list of five options resulted in the removal of one of the solutions from the list. This was the new 220 kV overhead line option which performed less favourably against the other solutions.

Details of the assessment throughout *Step Two* are available on www.eirgrid.com



Study Area for Capital Project 966

Next Steps

The four shortlisted options will be examined in more detail in *Step Three* of our six-step process. This will take between 12 and 18 months and at the end we will put forward a best performing solution option to be developed for construction and energisation.

It is worth noting that three of the options have features and technical features which have not been studied or investigated.

The uprate option is a new innovation that has never been used in the Irish transmission system. This presents its own opportunities and challenges.

The two underground cable options require very detailed analysis to determine if they are technically feasible. Previous analysis has indicated that long lengths of AC 400 kV underground cable cannot be accommodated in the Irish transmission network. A full technical investigation will be completed in *Step Three* for the cable options.

Step 1

How do we identify the future needs of the electricity grid?

Step 2

What technologies 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

The planning process

Step 6

Construction, energisation and benefit sharing

Who are EirGrid and what do we do?

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

We develop, manage and operate the electricity transmission grid. This 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. This supplies the electricity you use every day in your homes, businesses, schools, hospitals and farms.

Feedback

We welcome your feedback. If you have any comments on the technology options outlined above, or any other aspects of the development, please send them to:

Customer Relations
Capital Project 966
The Oval
160 Shelbourne Road
Ballsbridge
Dublin
D04 FW28

Telephone: 01 677 1700

We will provide further detailed project information and updates at www.eirgrid.comxx



Printed on recycled paper