

## Who are EirGrid?

- Develops & operates the electricity grid
- Independent from ESB since 2006
- State-owned company that works for the benefit of all electricity users
- Plans and responds to electricity needs: now, tomorrow and in twenty years.

**EIRGRID**


## What does EirGrid do?

- We send electricity from where it is generated to where it is needed
- We operate wholesale markets so there is enough power at the best price
- The grid carries large amounts of power – so we only directly supply high-volume users
- The grid also powers ESB distribution network that supplies homes, farms and small businesses



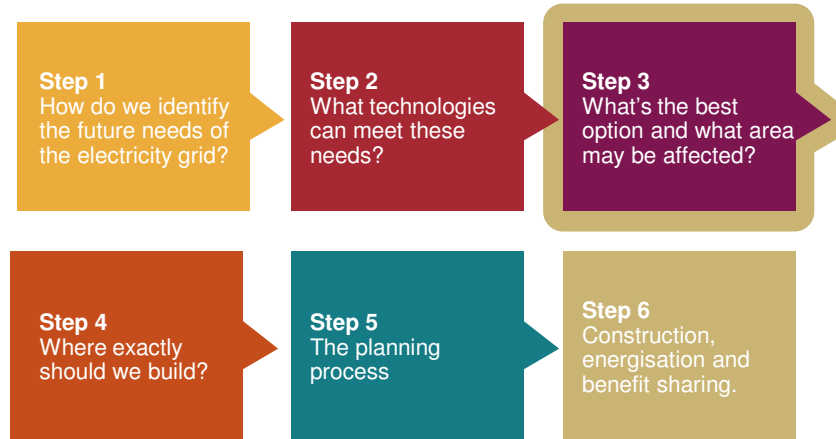
## The Kildare-Meath Grid Upgrade

- Connect Woodland in County Meath and Dunstown in County Kildare
- Integrate electricity generators (renewable and conventional)
- Serve growing demand in the East
- Introduce large cross-country power flows to the East
- Better distribute power within Kildare, Meath and surrounding counties



Essential to meet Climate Action Plan target of 70% renewable energy generation by 2030

## Our Framework for Grid Development



## Benefits



### Competition

Apply downward pressure on the cost of electricity to consumers



### Sustainability

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



### Security of Supply

Improve electricity supply for Ireland's electricity consumers



### Community

Deliver community benefit in the areas that facilitate the project infrastructure





## Grid infrastructure & Foreign Direct Investment

“Proper infrastructure is key to Ireland maintaining its international competitiveness. **We must maintain an environment that is conducive to doing business** – and adequate commercial energy capacity is central to that.


IDA Ireland views EirGrid’s new strategy to upgrade the national electricity grid as a positive move, and welcomes EirGrid’s stated aim of transitioning the electricity sector to low-carbon, renewable energy.”

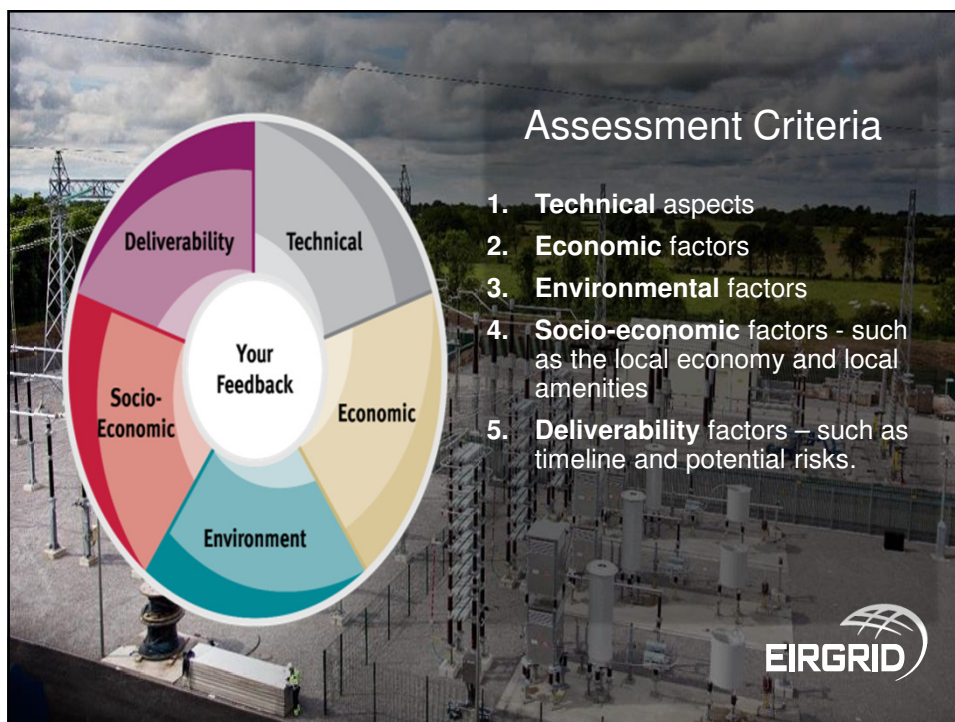
Martin Shanahan, CEO of IDA Ireland



## Options

- **Option 1:** Connect two existing 220 kV overhead lines and increase voltage to 400 kV
- **Option 2:** Build a 400 kV overhead line
- **Option 3:** Build a 220 kV underground cable
- **Option 4:** Build a new single conductor 400 kV underground cable in one route
- **Option 5:** Build a new 400 kV underground cable using two new conductors in two separate routes





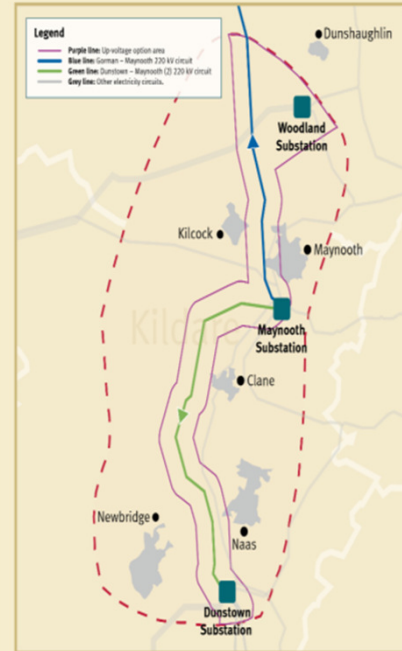
## Emerging Best Performing Option

- Option 1 is the emerging best performing option (overhead line).
- Option 4 is the emerging best performing alternative (underground cable).

### Option 1: Emerging Best Performing Option

**Connect two existing 220 kV overhead lines and increase voltage to 400 kV.**

- Gorman – Maynooth 220 kV circuit (blue line); and
- Dunstown – Maynooth (2) 220 kV circuit (green line)



### Option 4: Emerging Best Performing Alternative

**A new single conductor 400 kV underground cable in one route**

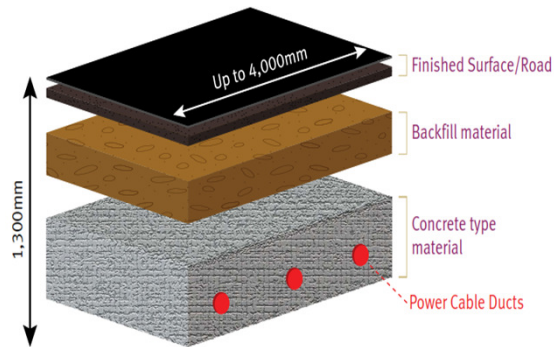
- Preferably installed under the existing road network.
- 4-metre-wide trench required.
- Local traffic restrictions required.
- Additional work on the Dunstown and Woodland stations would be required.



#### Option 4: Emerging Best Performing Alternative

**A new single conductor 400 kV underground cable in one route**

- Preferably installed under the existing road network.
- 4-metre-wide trench required.
- Local traffic restrictions required.
- Additional work on the Dunstown and Woodland stations would be required.



Indicative underground cable arrangement



#### Option 2:

**A new 400 kV overhead line.**

#### Option 3:

**A new 220 kV underground cable**

#### Option 5:

**A new 400 kV underground cable using two new conductors in two separate routes**



A brief comparison of the 5 options being considered for this project. Find out more at [www.eirgrid.ie/KildareMeath](http://www.eirgrid.ie/KildareMeath)

Consideration	Option 1 Connect two existing 220 kV overhead lines and up-voltage to 400 kV	Option 2 Build a 400 kV overhead line	Option 3 Build a 220 kV underground cable	Option 4 Build a single conductor 400 kV underground cable in one route	Option 5 Build a 400 kV underground cable using two conductors in two separate routes
Outcome of multi-criteria assessments to date	Emerging best performing option	Not emerging as a preferred option	Not emerging as a preferred option	Emerging best performing alternative	Not emerging as a preferred option
Capital cost	€239m	€168m	€372m	€356m	€679m
Environmental impact	Least risk	Moderate risk	Moderate risk	Moderate risk	Most risk
Potential disruption during construction	Possible road closures, traffic and land access disruption	Possible road closures, traffic and land access disruption	Possible road closures, traffic and land access disruption	Possible road closures, traffic and land access disruption	Possible road closures, traffic and land access disruption
Visual difference when construction completed	There will be changes to existing overhead infrastructure with minimal new infrastructure on the existing route. New infrastructure into Woodland station	New overhead infrastructure	New underground infrastructure, mainly under existing roads. No new overhead infrastructure	New underground infrastructure, mainly under existing roads. No new overhead infrastructure	New underground infrastructure, mainly under existing roads. No new overhead infrastructure
Meets technical requirements	Yes	Yes	Not to the same level as other options	Yes	Yes
Other notable points	Uses route along existing overhead lines and maximises use of existing infrastructure			Requires a 4 metre wide cable trench and overall work space of up to 12 metres in places	Requires the same as option 4 but along 2 routes

## How can I get involved?

### Where can I find out more?



Documents Online



Interactive Maps



Virtual Exhibition



Upcoming Webinars



Speak to the Team

### How do I share my views?



Freepost Questionnaire



Online Questionnaire



Post your submission



Email your submission

**Web:** [www.eirgrid.ie/KildareMeath](http://www.eirgrid.ie/KildareMeath)



Thank You!



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