



Celtic Interconnector

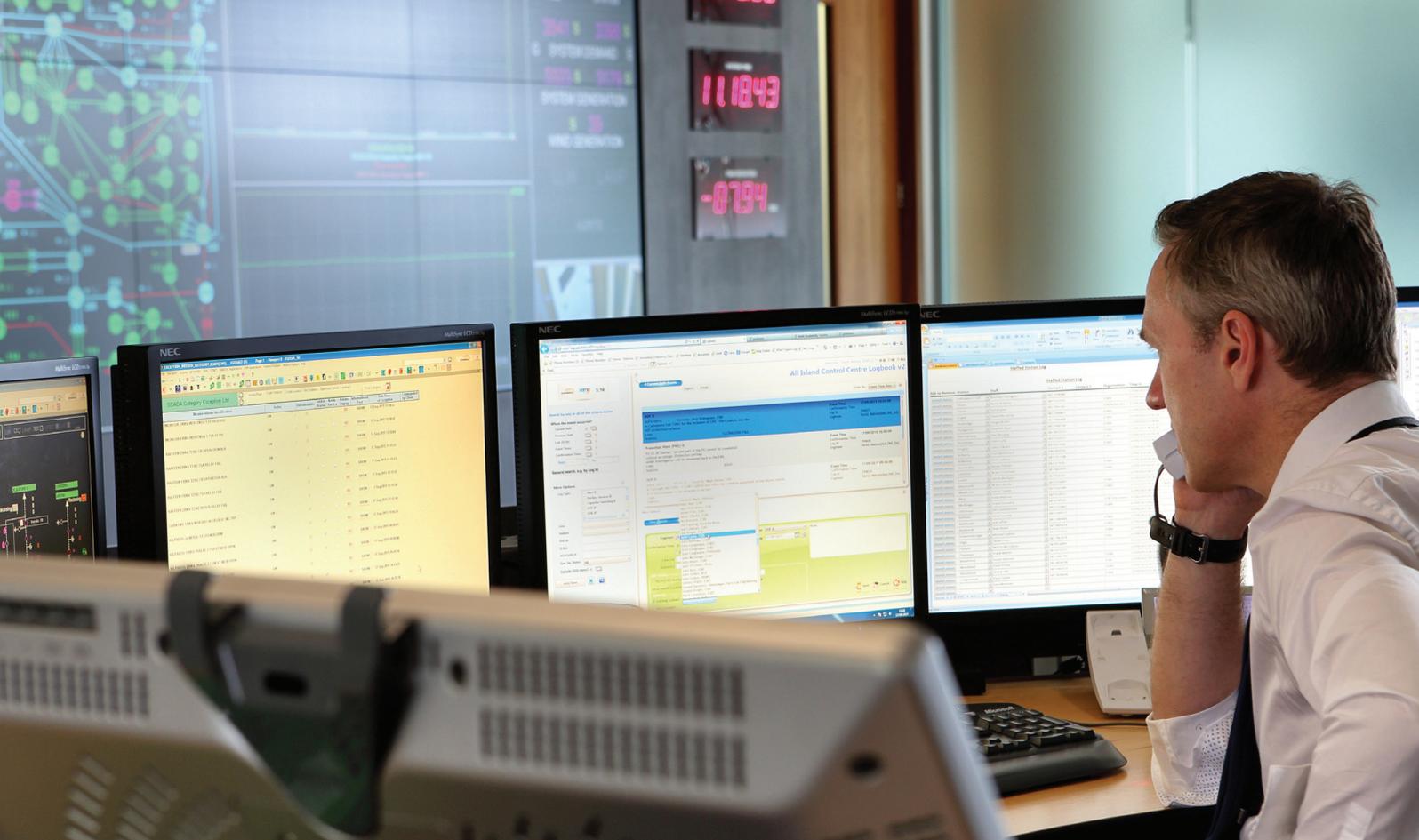
Project Update
Step 3 Consultation
Spring 2019



The current. The future.



Co-financed by the European Union
Connecting Europe Facility



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 and supplies the electricity you use every day in your homes, businesses, schools, hospitals and farms.

As part of our role, we are required to explore and develop opportunities to connect our transmission grid with the transmission grids in other countries.

About this update

This update is for stakeholders, communities, landowners and members of the public who may be interested in finding out more about the Celtic Interconnector project. The purpose of this document is to provide information on the project and support the public consultation process taking place during Spring 2019. It provides up to date information on the project, including its benefits for Ireland, the technology involved, what has been learned on the project so far, and how you can get involved.

What is the Celtic Interconnector?

The Celtic Interconnector is a proposed electrical link which will enable the movement of electricity between Ireland and France. We have been working with our counterpart in France, Réseau de Transport d'Électricité, to develop an interconnector between our two countries. At this stage, no decision has been made to build the Celtic Interconnector. Should the project proceed, a final decision to commence construction would happen in around 2021. The interconnector would then go live in 2026.

Project of Common Interest

The European Commission sees interconnection between member states as key to a more integrated European electricity system. It has designated the Celtic Interconnector as a Project of Common Interest (PCI) since 2013. Projects with this status are recognised as developing key cross border infrastructure that links the energy systems of EU countries. PCI projects are intended to help the EU achieve its energy policy and climate objectives. The status places significant emphasis on public participation and environmental assessment. It also provides significant funding opportunities and streamlines the consenting process.

Project Benefits

 Competition Apply downward pressure on the cost of electricity to consumers in Ireland and France	 Sustainability Help facilitate Ireland's transition to a low-carbon energy future	 Security of Supply Enhanced security of supply for Irish electricity consumers	 Fibre Optics Provide a direct telecommunications link between Ireland and France (and continental Europe)
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The technology

The Celtic Interconnector will use Direct Current (DC) technology for the subsea transfer of electricity. The main elements of the Celtic Interconnector are illustrated below:



Celtic Interconnector Project Elements

6 Step Approach

We follow a step-by-step approach to planning the grid. This approach guides how we:

- engage and consult with stakeholders and communities,
- explore options fully, and
- make more informed decisions.

The Celtic Interconnector project is currently nearing completion of Step 3.



What has happened so far?

In early 2018, EirGrid confirmed that the best performing marine route option is between East Cork and North West France, passing to the west of the Isles of Scilly and avoiding UK territorial waters. Five feasible landfall locations, where the marine cable could come onshore, were identified and Knockraha substation was identified as the most suitable point where the interconnector could connect to the electricity transmission grid.

Further studies were completed on the landfall locations, and a number of zones in the Knockraha - Middleton area were identified as potentially suitable for the location of a converter station, a key element of the project, explained below.

What is a converter station?

The electricity systems in Ireland and France both use Alternating Current (AC) technology. Converter stations are required in France and in Ireland to convert between DC and AC, and vice versa. The converter station is an industrial type building with a height of up to 25 m and is accommodated within a larger outdoor compound with typical dimensions of 300 m x 150 m.

What is a landfall location?

A landfall location is where the submarine electricity cable will connect to the underground electricity cable. This connection will be installed behind the beach where the submarine cable comes ashore. The connection will be made underground and the landfall location will be restored to its original condition once construction is complete.

What have we done in Step 3?

Landfall locations

As part of the further studies relating to the landfall locations we:

- carried out marine surveys off the coast of East Cork to better understand the seabed environment on route options approaching the landfall locations,
- assessed the challenges and considerations associated with bringing a cable onshore, and
- considered the availability of options for connecting the landfall locations to the connection point at Knockraha.

Converter station location zone

14 broad location zones were identified, each 2 km wide in diameter, which could feasibly accommodate a converter station for the project. The final site for a converter station building and outdoor compound would be about 4 hectares – approximately the size of four sports pitches.

Completion of further studies

We have completed further studies on the landfall locations and converter station location zones, assessing and comparing them under five different categories:

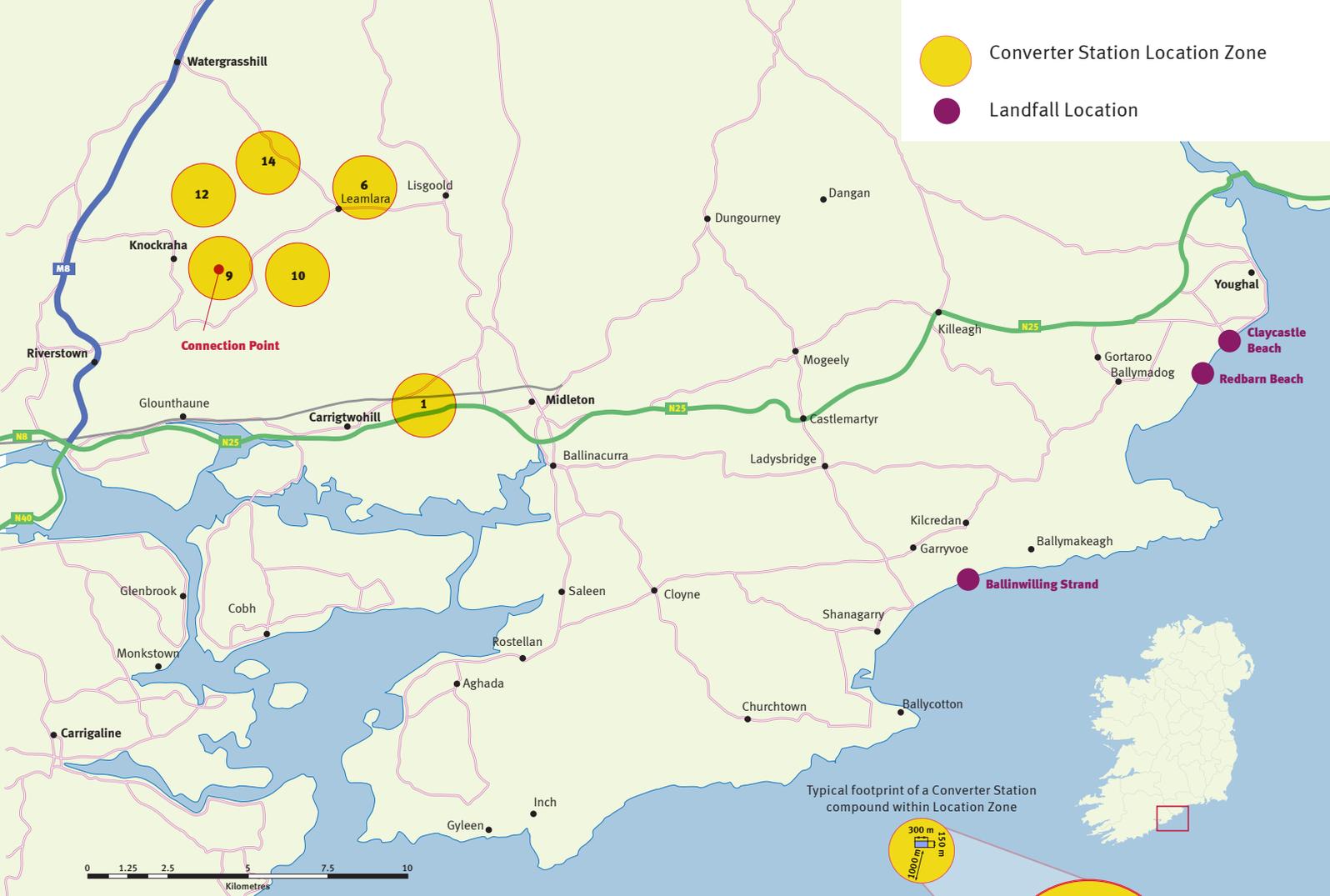
1. Technical,
2. Economic,
3. Deliverability,
4. Environment, and
5. Socio-economic.

Feedback received from stakeholders was also considered.

These assessments helped us to identify the shortlist of options for the converter station location zones and landfall locations.

EirGrid intends to construct the Celtic Interconnector as an underground cable project and therefore assessment at this stage has considered an underground cable installed in the road network for both the AC and DC cable routes.

Based on assessments to date a fully underground cable option appears to be feasible. Additional equipment will be required at the connection point once the AC land cable goes beyond approximately 4.5 km in distance. There are further specific routing studies which need to be carried out during Step 4 and the availability of suitable routes for the AC land cable may influence the ultimate location of the converter station.



Short List of Converter Station Location Zones and Landfall Locations in East Cork

The proposed shortlists

Converter Station Location Zones:

- 1 - Ballyadam
- 6 - Leamlara
- 9 - Knockraha
- 10 - Pigeon Hill
- 12 - Kilquane
- 14 - Ballyvatta

Landfall Locations:

- Ballinwilling Strand
- Redbarn Beach
- Claycastle Beach

The numbers shown above correspond to the 14 zones identified and assessed which are contained within the Onshore Constraints Report.

Supporting documentation

To learn more about our assessments and the shortlists identified, visit our website at www.eirgridgroup.com/the-grid/projects/celtic-interconnector. There you can find reports of the assessments listed overleaf.

Please contact us if you would like to receive a hard copy of any of these reports.

Report Title	Report Outline
1. Offshore Constraints Report and Mapping	This outlines the considerations identified in relation to the nearshore aspects of the landfall locations.
2. Onshore Constraints Report and Mapping	This outlines the considerations identified in relation to the converter station location zones and the onshore aspects of the landfall locations
3. Social Impact Assessment Scoping Report	This identifies stakeholders and trends in social issues that will inform the assessment of social impacts.
4. Performance Matrix Assessments	This outlines how the range of options were assessed and compared.

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

Step 3 At a glance

What's happening?

We are now consulting on Step 3. We are seeking feedback on both the proposed landfall location and converter station location shortlist. This will allow us to explore options fully before they are finally confirmed. We will continue to study the shortlisted options as part of our environmental assessment process.

How long is this consultation period?

This period of consultation will take place over eight weeks.

What can you influence?

Your feedback will help us to confirm the shortlist of:

- converter station location zones;
- landfall locations.

How can I get involved?

All stakeholders and communities are invited to submit their feedback by Monday, 10 June.

To do this you can:

- complete our feedback form online,
- attend public information meetings,
- contact us by email, phone or in writing.

For a paper copy of our project materials or to ask any questions you can contact our Community Liaison Officers at the contact details listed overleaf.

Next steps

In Step 4 we will look to identify one best performing option for each of the project elements and determine where and what exactly we should build.

Consultation and engagement will take place throughout Step 4 which we expect to complete before the end of 2019.

We will further assess both shortlists, and identify route options for the land circuits. To do so we will consult further with landowners, local communities, organisations and elected representatives.

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