Roinn Cumarsáide, Gníomhaithe
ar son na hAeráide & Comhshaoil
Department of Communications,
Climate Action & Environment

# Draft National Policy on Electricity Interconnection in Ireland:

# Public Consultation

Aim of this Public Consultation:

- To inform the development of Ireland's electricity interconnection policy
- To identify the evidence base appropriate in the evaluation of proposed electricity interconnectors

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## 1. Introduction and Context

Electricity interconnection is strategically important to Ireland, having a potentially substantial impact on each of the three pillars of Ireland's energy policy – sustainability, security of supply and competitiveness. Interconnection also supports the energy transition and may have a variety of wide-ranging benefits to the Irish consumer, including lower long term costs of electricity through connection to a larger market and diversity of electricity supply.

Ireland currently has electricity interconnection with Northern Ireland (as part of the Single Electricity Market) and with Great Britain. Further interconnection with Northern Ireland is proposed and is currently at the planning stage. When the UK leaves the EU, Ireland will have no direct electrical interconnection with the rest of the EU. Further interconnection with Great Britain and new interconnection with France are currently proposed.

European policy is explicit in its support of electricity interconnection between Member States and interconnection projects are also explicitly facilitated under the *EU Projects of Common Interest* (PCI) process.

Ireland's independent energy regulator – the Commission for Regulation of Utilities (CRU, formerly the Commission for Energy Regulation (CER)) – plays a key role in relation to electricity interconnection. CRU is responsible for granting authorisations for the construction of interconnectors and for licensing interconnectors. In discharging these responsibilities, it decides on appropriate regulatory support to underpin interconnection investment and cooperates with other National Regulatory Authorities and their European umbrella body, ACER, in the PCI process. It also makes decisions on cross border cost allocation, an important element of the PCI process.

This public consultation to inform an interconnection policy statement is particularly timely given the advancing status of two existing electricity PCI proposals – Greenlink between Ireland and Great Britain and Celtic between Ireland and France. Both projects have been recently selected as PCI's for the EU's third PCI list for the two-year period 2018-19 and are likely to submit investment requests to the CRU in 2018. The CRU has initiated a process to inform and underpin their regulatory approach to electricity interconnection. This it started via public consultation by seeking initial comments on an interconnection information paper. CRU has also recently issued an information note and direction to Eirgrid – Ireland's Transmission System Operator - to progress to the next stage grid applications from interconnectors with PCI status.

For these reasons, the Department of Communications, Climate Action and Environment (DCCAE) now wishes to further develop and consult on the national policy on interconnection, to augment policy certainty for potential developers and to best serve the Irish public.

Interconnection involves large scale energy infrastructure. As with any such development, there are evident risks but the long term nature of energy infrastructure is generally supportive of economic growth so solid national policy is required. In this context of delivering public good, DCCAE has developed this draft national policy document on electricity interconnection.

In drafting a proposed national policy on electricity interconnection, DCCAE has looked to European and national policy drivers and has also considered the role of Ireland's energy regulator and the evidence base from a policy perspective that might be considered in the evaluation of interconnection investment requests from project promoters.

DCCAE is now seeking feedback on this draft policy from interested parties. All feedback will be welcome and will inform the publication of a policy paper on electricity interconnection in Q2 2018.

Submissions should be e-mailed to interconnectionpolicy@dccae.gov.ie or posted to:

Public Consultation on Draft Interconnection Policy

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The closing date for submissions is 17:00 on 2 March 2018.

Responses to this consultation are subject to the provisions of the Freedom of Information Act 2014 and Access to Information on the Environment Regulations 2007-2014. Confidential or commercially sensitive information should be clearly identified in your submission, however parties should also note that any or all responses to the consultation are subject in their entirety to the provisions of the FOI Acts and may be published on the website of the Department of Communications, Climate Action and Environment.

## 2. Draft National Policy Parameters

### (a) EU Policy

Interconnection is viewed as critical infrastructure by the European Commission – underlined by its PCI process – in order to move to a genuinely integrated electricity market. Interconnection development relieves international grid congestion, in much the same manner as national transmission development alleviates congestion of the transmission system within any individual jurisdiction. It also enables efficient dispatch and associated market trades which ensure that electricity flows to where it is most valued and that consumers' benefit from international competition and ultimately lower prices.

The second pillar of the EU's Energy Union strategy is the delivery of a fully-integrated internal energy market using interconnectors to allow energy to flow freely across the EU. In 2014, the European Commission committed to working with Member States to ensure speedy implementation of PCI's and other measures to meet the target of achieving interconnection of at least 10% of installed electricity production capacity for all Member States by 2020 and 15% by 2030.

Reaching the targets will be facilitated primarily through the implementation of PCI's. In November 2017 the EU Commission published its third list of PCI's. The process involved focused on the identification of particular problems/bottlenecks that interconnection projects would then have to address directly to ensure selection.

To further examine the interconnection objectives and targets (as well as the calculation of the targets), the European Commission set up an Expert Group on electricity interconnection. The Expert Group presented a report on its work in November 2017. The report recommends assessing the need to develop further interconnection capacity, reflecting the different energy realities in EU countries and the different roles interconnectors play in supporting the completion of the internal energy market, enabling the integration of renewables and ensuring security of supply. In the light of this report, in the "Communication on strengthening Europe's energy networks" published in November 2017, the European Commission proposed to refine the 15% target through a set of additional and more specific thresholds. The use of these thresholds will serve as indicators of the urgency of the action needed in order to help the EU achieve its energy policy and climate objectives.

## (b) National Policy

Ireland's peripheral location at the edge of mainland Europe presents obvious challenges to interconnection, not least in the area of costs, yet may also highlight the desirability of interconnection, particularly in the context of security and diversification of electricity supply.

Ireland's high level policy position on interconnection emphasises the important role of interconnection in the transition to a low carbon energy future. Ireland's Energy White Paper published in December 2015 makes a variety of positive comments about the potential benefits of electricity interconnection to Ireland. For example, in its outline of "measures to maintain and enhance energy security" it commits the Department of Communications, Climate Action and Environment (DCCAE) to "promoting and facilitating interconnection with other countries and regions."

"By 2030 the energy system will be part of a single, physically interconnected EU internal energy market, which will bring greater security of supply and easier access to cross-border flows of electricity and gas from other EU Member States." - *Energy White Paper*

One of the key requirements identified in the White Paper is the need for appropriate energy infrastructure, including energy networks and interconnection with other countries' energy systems. It also commits to "support policies that encourage diversification of energy supplies".

The Energy White Paper references the EU's 2030 15% interconnection target and Ireland's interconnection level is currently reported by the European Commission as 7.4%, well below the 2020 target of 10%:

'The 2009 All Island Grid Study showed that the current transmission network could safely absorb a level of renewable production generation of up to 42% of total electricity generated without affecting security of supply. Higher penetration levels would require significant additional interconnection or energy storage. This continues to be the case and, given the Commission will report regularly to the European Council with the objective of arriving at a 15% target by 2030, further interconnection will be necessary.'

The 'Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure' was published in 2012 and was further referenced in the Energy White Paper. This policy statement reaffirmed the need for the development and renewal of energy networks, including interconnection, in order to meet economic and social goals.

Whilst the PCI concept was originated by the European Commission, PCI's, are energy projects of national priority that have the explicit support of Member States impacted. Ireland has supported both the Greenlink and Celtic projects at all stages of the recent PCI process that concluded with the publication of the third PCI list in November.

Overall, it is clear that Ireland's positive approach to interconnection is fully in keeping with the EU's approach.

## (c) Role of the Regulator (CRU)

The CRU has a variety of duties emanating from European law, including the Energy Third Package[1] which requires the CRU to take all reasonable measures "to eliminate restrictions on trade in electricity between Member States, including developing appropriate cross-border transmission capacities to meet demand and enhance the integration of national markets." Under Section 14(1)(i) of the Electricity Regulation Act, 1999, as amended, the CRU is responsible for granting licences to transport electricity across and maintain an interconnector. Pursuant to Section 16 of the same Act, the CRU is also responsible for granting the requisite authorisation to construct an interconnector and in so doing the CRU decides on the appropriate regulatory regime for it. Such decisions must be discharged in the public interest.

## (d) Scope of the Draft DCCAE Policy on Interconnection

This DCCAE consultation on a draft policy on electricity interconnection will help to guide the CRU in determining its approach to electricity interconnection, by outlining the key evidence base that CRU should have regard to in its evaluation of interconnection investment requests from project promoters.

The scope of this draft policy is confined to include only electricity connections regulated by the CRU and outside of the All-Island Single Electricity Market (SEM) and does not include transmission lines within or interconnections between the jurisdictions in the SEM.

[1] DIRECTIVE 2009/72/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 July 2009

## 3. Evidence Base Important in the Evaluation of Electricity Interconnector Proposals

After outlining the policy drivers at both national and EU level, this draft policy now turns its attention to the evidence base that DCCAE considers important in the evaluation of electricity interconnection proposals by the CRU. If the Irish public is to underwrite – or part underwrite – the risks associated with electricity interconnection, then there must be a variety of evidence important to the (public) investment decision. Here we outline some such evidence and seek feedback on gaps, insufficient detail, the absence of clarity and so on. Feedback on this material will ultimately inform the final policy that will serve to guide the CRU in its evaluation of interconnection investment requests from project promoters.

Electricity interconnection proposals should be underpinned by a variety of evidence:

1. Project proposals must demonstrably prove that they are technically sound, including comprehensive examination of the technical aspects of the proposed interconnection with consideration of issues such as level of capacity, destination country, anticipated interconnection losses, interconnector dispatch and network reinforcement costs (under varied scenarios and sensitivities and including locational demand projections),
2. Project proposals should be underpinned by power system modelling - timelines reaching out over a number of decades - as well as economic modelling for quantitative outputs related to both the Irish system and the jurisdiction to which the proposed interconnection is linking,
3. Project proposals should clearly outline the baseline scenario underpinning the proposal – existing levels of interconnection and assumptions in relation to demand, generation capacity etc., such as EirGrid's most recent Generation Capacity Statement and Tomorrow's Energy Scenarios,
4. Sensitivity analysis should be performed, to include consideration of key inputs such as:
    - Cost
    - Timing
    - Demand
    - Generation portfolio
    - Fuel and carbon prices and taxes,

5. There should be an analysis of the benefits and costs of the interconnection proposal to Ireland along with their drivers. This estimation of costs and benefits should include commentary and evidence concerning the usual parameters such as NPV, BCR and IRR. The analysis should include:
   - Readily quantifiable benefits e.g. impact on wholesale electricity prices, impact on productions costs, capacity benefits including impact on capacity market payments,
   - Non-quantifiable benefits e.g. fuel diversity, impact on market liquidity, social and environmental impacts.
6. Risk evaluation, quantitative and/or qualitative, as appropriate, to include:
   - Economic impact of the proposed interconnection project through analysis of system production costs and possible capacity benefit to the Irish transmission and distribution networks,
   - Assessment of the impact of the proposed interconnection on the Irish system marginal price,
   - Assessment of the impact of the proposed interconnection on meeting government renewable energy targets, including increasing penetration of intermittent electricity sources and avoiding curtailment,
   - Assessment of the impact of the proposed interconnection on diversity of electricity supply taking into account the projected fuel mix of the jurisdiction that the proposed interconnector is planned to connect to,
   - Impacts of the proposed interconnection on the operation of and economic performance (including congestion income) of existing interconnectors,
   - Risk of the proposed interconnection displacing domestic sources of energy,
   - Risk of inefficient flows on the proposed interconnection,
   - A welfare analysis which includes a consideration of distributional impacts of the proposed interconnection and clearly illustrates the breakdown between consumer and producer welfare gains,
   - Technical risk e.g. underwater cabling, impact of higher levels of installed wind capacity

## 4. Additional Aspects CRU May take into account during Evaluations

1. Consideration of national objectives regarding security of electricity supply.
2. High level consideration of meaningful and extant (at the time of the decision) alternatives to the electricity interconnection being proposed e.g. gas interconnection or storage.
3. Evaluation of different approaches to the regulatory treatment of interconnectors which might be most appropriate to Ireland. This could include an examination of the appropriateness or otherwise of using full regulatory underwriting, cap and floor and merchant approaches. Such an evaluation might take account of risks to consumers, in particular should a regulated model be the interconnection model adopted for a particular proposal.
4. Examination of possible under-utilisation of existing stranded assets or additional interconnectors (cannibalisation).
5. Brexit and its likely impact on interconnection, EU targets and objectives and security of supply including the extent to which Brexit impacts on the security of supply benefits of a particular interconnector.
6. EU Policy including the Clean Energy Package for all Europeans.

## 5. Questions for Public Consultation

1. What, if any, additional weighting should the CRU apply to security of supply considerations in its decision-making process?
2. What, if any, additional weighting should the CRU apply to diversity of supply considerations in its decision-making process?
3. Should the CRU take EU interconnection targets into account in its evaluation? If so, how?
4. What impact does EU Policy and the EU's Clean Energy Package for all Europeans have on electricity interconnection to Ireland? Are there any other EU/national legislation or policy objectives that should be considered?
5. Are there any gaps in the policy backdrop outlined in this paper?
6. Are there any gaps in the evidence base outlined in this paper?
7. Is there anything else we need to consider as we set about finalising a national policy statement on electricity interconnection?