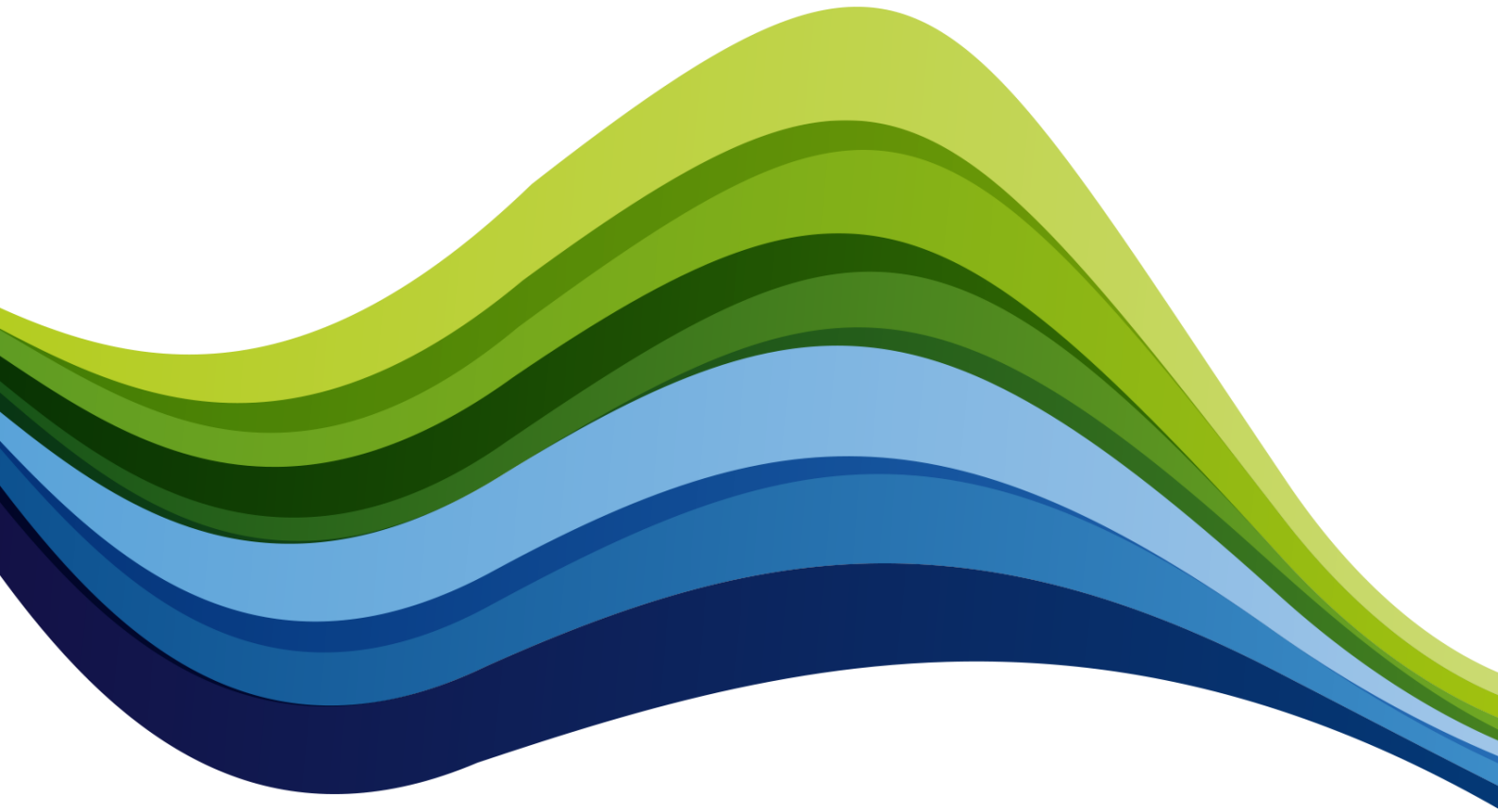
CRU ASSESSMENT OF CELTIC INTERCONNECTOR INVESTMENT REQUEST

Consultation: CRU 18/265



Introduction

SSE welcomes the opportunity to respond to CRU's assessment of the Celtic Interconnector Investment Request. Given the large level of renewable generation installed and being proposed for Ireland and its accompanying support (RESS), the forthcoming political uncertainty surrounding Brexit, the renewable targets and obligations at an EU level with the forthcoming clean energy package and ramping up of DS3 revenues; projects to increase renewables penetration and reduction of curtailment, are critical.

As an island on the periphery of Europe, the impetus for interconnection may be greater in Ireland to allow us to access other EU energy markets. We note the likely increased impetus for a connection to mainland Europe, through the Celtic project, to provide that link, in the event of Brexit (particularly as noted, a hard Brexit[1]). However, interconnectors must also be understood in the context of what they deliver, which is transmission infrastructure that connects two markets. This is distinct from installed generation, which facilitates Ireland in terms of ensuring domestic security of supply. Being a small market and at the end of Europe, Ireland could become a captive market with limited opportunity for generators to compete equally, given the specific system and transmission limitations that the TSO is required to manage, (which remain unresolved).

We provided an extensive response to the CRU's assessment criteria consultation (CRU 18/131). We consider that response contains within it, several of the same comments that we consider pertinent to raise in relation to consideration of the Celtic interconnector proposal. We appreciate that our comments are not directly related to the overall methodology for costs and benefits, or approach taken to CBA. However, we consider them part of an impact assessment and basis on which benefits, and costs should be contextualised. Our reasoning is that, without domestic network, market and balancing measures, the true utility of further interconnection cannot be fully predicted or realised. Therefore, we would encourage you to review our previous response in conjunction with our comments below.

Executive summary

We note that this consultation follows from the consultation and determination on the Greenlink submission and consultation on assessment criteria for interconnector submissions. The Greenlink determination outlines the results of the CRU's CBA and indicates benefits to customers, except in the scenario that Celtic exists on the system as well. In this case, Greenlink benefits are reduced. We note a similar conclusion for the CRU's consultation for Celtic, where there appears to be benefits to Irish consumers, however at considerable cost to Irish consumers (albeit with a high likelihood for this direct link to mainland Europe to receive a high CEF grant against the cost of this investment). In addition, we note that scenario modelling signals the same, that where Greenlink is connected at the same time, benefits specifically for Celtic, are reduced.

Our response outlined below, seeks to address the proposal on the basis of:

- Security of supply
- Market considerations
- Network considerations
- Response to consultation questions

[1] Page 3 of the CRU consultation

We appreciate that the Celtic interconnector project represents a unique connection point in connecting Ireland to mainland Europe. Therefore, on the basis of providing direct access to Europe and the possible extreme effects of Brexit, this project may have inherent benefits associated with it. However, this would need to be on the basis of significant EU funding to balance higher project costs and acknowledging the fact that in the short-term, Celtic would not be operational in time, for the exit of GB from the EU.

Security of Supply

Security of supply can be understood as an umbrella term for a wide variety of activities to ensure market sufficiency, i.e. increased investment and entry of diverse types of generation, efficient market trading and mechanisms, incentives for optimal generation, external interconnection for import and export (i.e. gas twinning versus interconnector trading flows), domestic storage options, etc. There is a balance to be struck, between striving for greater EU market cohesion through interconnection, and reliable and flexible levels of domestic market sufficiency (particularly given current risks around Brexit). The size of the Irish market is small and remote. Therefore, the focus on external measures for security of supply is understandable. However, measures at a domestic level, through system design, market function and additional services, serve to provide a sustainable market and reduce dependence on imports. Furthermore, addressing of locational constraints, increasing levels of domestic wind penetration (and reduced curtailment) and improving infrastructure, will also deliver supply to where it is most needed.

It is important to point out that external measures for security of supply remain outside the complete and autonomous control of domestic decision-makers and market operators. There is a tipping point beyond which, external measures for security of supply, will surpass balancing domestic measures, and will expose the Irish market (to high levels of imports for instance), if the contribution of external sources to security of supply is overestimated. Being small and remote, this could result in a captive market and increased dependence on imports, to the detriment of domestic generation.

However, notwithstanding the significant impetus for considering a connection through to France, as discussed below, there needs to be a demonstration of how additional interconnection is a better proposal for consumers, versus optimisation of existing interconnection and domestic level measures to ensure security of supply (i.e. increases in network reinforcement and infrastructure and DS3, which is optimising domestic generation, at cheaper cost to customers). Furthermore, we would welcome clarification on the likelihood of the CEF grant funding for this project. Otherwise, the significant investment, over and above Greenlink, in the absence of EU funding, may outweigh the benefit of being the first connection to mainland Europe.

Market considerations

CRM market design

We have previously commented on the intention for a large transmission asset like an interconnector, to be included in the CRM design. This view still stands. A large transmission asset bidding into the capacity market, with limited exposure to underlying wholesale markets or specific penalties that incentivise performance, could create distortions that could undermine the achievement of the all-island Reliability Standard. We have seen this most

clearly in the specific effects of including the North-South tie-line into the current market design. We understand that on the back of recent market events, the regulators North and South are considering the implications to the market of such locational constraints being bid into the market. We consider that both Celtic and Greenlink on their own or located proximate to each other in the South East, will likely have the same effect in creating a locational constraint.

Operation of the market

Given the experience of the new SEM market and interconnector flows to reduce curtailment and maximise renewables penetration, the TSO is not currently achieving accepted interconnector trades with their counterparts. There is a need for significant learning to be taken on board, to achieve direct, successful and accepted interconnector trades within gate closure in order to justify connection to a notionally cheaper nuclear market.

We note that a recent information paper[2] have been published on SEMO's website, which seem to be clarifying the operation of the market insofar as interconnection. As we understand it, it appears that SEMO has removed the option for direct trading for EirGrid or SONI with National Grid, for cross border trading except in the case of security of supply issues. As mentioned above, this throws into question the utility of interconnection. While most of the value of the interconnector is captured through optimisation of Day Ahead flows, benefits of utilising renewables and providing security of supply rely on the TSO using the CBB processes effectively.

We have already provided some comments on the effects to prices—please refer to our previous consultation response.

Network considerations

The CRU's policy papers on interconnection, assume that interconnection will facilitate higher levels of intermittent renewable generation on the system. This in turn may facilitate further levels of renewable integration in Ireland. Theoretically, this is the benefit of interconnection. However, this view is simplistic when taking into consideration the network capabilities of the Irish electricity system. The assumption is the same for the proposal for Celtic interconnector investment request and the basis on which all benefits have been considered.

SSE is of the view that network and locational issues should be resolved in the medium term, to facilitate existing and new renewable generation and that the impact of new interconnection should be considered in any impact assessment. This is because the business case for new interconnectors assumes that commercial flows will not cause (and may actually help resolve) system issues. This has not been the case for all periods to date, with EWIC actually causing increased levels of curtailment in its first year of operation. The investment case for new interconnectors needs to be tied to expectations for both commercial and physical flows. The former should be a benefit to consumers, but only if they don't create system issues that would lead to higher dispatch balancing costs, system service requirements or increased curtailment.

Furthermore, new interconnection should not itself be seen as a single solution to ensure greater renewables penetration, or to address inherent locational and network issues that limit renewables penetration at the moment. Rather, network issues and locational constraints

[2] Cross border trading EirGrid/SONI with National Grid

need to be resolved anyway, for a host of related reasons, and interconnection is just one solution that may or may not help.

By way of example, specific network issues to consider:

1. There are certain investment projects that seek to improve the overall network infrastructure and renewables integration. However, these projects (including DS3, North-South 400kV interconnector, Capital Project 966) have yet to be fully delivered. We consider they should be largely delivered, and benefits realised, to be able to model the full system optimisation that has been achieved domestically, before including additional interconnection. Given that these have yet to be fully delivered, there is also still an impression that the only resolution to manage increased levels of intermittent generation, is to move it to another jurisdiction.
2. Both interconnectors are proposing to site in a proximate location to each other. Given the size of these assets individually, the capacity of the existing transmission infrastructure, and the generation assets already located within this region, we consider that these assets will create a locational constraint in the South East. We note that the CRU's analysis has demonstrated both Greenlink and the Celtic interconnector suffer reduced benefits, where the other project is also delivered. As mentioned above, locational constraints such as in NI, are already causing significant market challenges. Locational constraints should be resolved to get the generation to where it needs to be, rather than signalling that generation should be maximised as exports in the South East and rather than undermining the magnitude of these locational constraints by increasing dependency on imports.
3. Should any of the interconnectors planned for the South East go ahead, network reinforcement will also be needed in advance of installation. This will help to alleviate the additional locational constraint that this asset will likely impose on the local network and generators in that area, existing and future. Without this network support, it is likely that when the interconnector is importing, there will be an effect of constraining off renewable generation. This is because, there is already a conventional plant locational constraint in this region, which coupled with an interconnector siting in this region, will have the likely consequence of increasing renewables curtailment, when importing.
4. Finally, ensuring that network reinforcement is prioritised in the medium term will ensure that market entry signals for necessary new generation are not diluted unnecessarily. This is important in the context of the upcoming T-4 auctions.

Response to consultation questions

Below we have responded directly to the consultation questions posed by the CRU.

Question 1: What are your views on project costs and benefits provided in the Celtic investment requests?

We welcome the approach taken by the CRU to review a worst case up to 70% and to explore the area of a CEF grant covering up to €418m of the cost, to reduce the impact this may have on consumers. As above, we have outlined certain competing factors that have a bearing on project benefits.

Question 2: What are your views on the CRU's assessment of the Celtic investment request?

We consider that the CRU has completed an assessment in line with its approach to Greenlink, and therefore in line with an intention to apply criteria for assessment of interconnector submissions.

Question 3: Do you have any additional evidence in this area that we should consider?

Not at this time

Question 4: What are your views on the initial high-level regulatory framework proposed by EirGrid?

We note CRU's intention to coordinate CBCA processes with CRE in France and to actively negotiate with this regulator on the approach and split costs. Therefore, there will be future consultations on the regulatory framework underpinning this project. We will engage with these future consultations. Initially, we would have concerns that an assetless entity like EirGrid (whose price control is developed on the basis of low asset base), is advocating for an additional asset to be added to its RAB.

On regulatory approach, notwithstanding which financial model is applied, we would consider that such a capital investment should carry with it, clear KPIs for continued and optimised operation, including interconnector trading, to ensure best benefits for customers and the market, are realised in real-time. In terms of regulatory framework, we would have also expected detail as to how this potentially regulated asset would operate and meet certain obligations likely for this asset. Furthermore, a more robust justification for WACC*RAB, should be provided.