



An Coimisiún  
um Rialáil Fónais  
**Commission for  
Regulation of Utilities**

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**Commission for Regulation of Utilities**

# Celtic Electricity Interconnector “EirGrid - Regulatory Framework Request”

## Decision Paper

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## **CRU Mission Statement**

The CRU's mission is to protect the public interest in Water, Energy and Energy Safety.

The CRU is guided by four strategic priorities that sit alongside the core activities we undertake to deliver on the public interest. These are:

- Deliver sustainable low-carbon solutions with well-regulated markets and networks;
- Ensure compliance and accountability through best regulatory practice;
- Develop effective communications to support customers and the regulatory process;
- Foster and maintain a high-performance culture and organisation to achieve our vision.

# Executive Summary

## Introduction

The purpose of this paper is to set out, the Commission for Regulation of Utilities' (CRU) cost recovery model for EirGrid as part of the regulatory framework for the Celtic Interconnector in Ireland. In developing this framework, the CRU is mindful of its duties to protect the interests of final customers. The CRU considers the interests of final customers to be met by allowing only efficient costs to be recovered and providing sufficient protections for customers while allowing EirGrid to finance and progress the project.

The CRU has decided to grant EirGrid a fully regulated regulatory model consisting of two phases:

- Phase 1 – Pre- Operational (i.e. developments & construction)
- Phase 2 - Operational.

Full details on this decision are outlined below.

## Cost Recovery Model

On 2<sup>nd</sup> June 2021 the CRU published a Consultation Paper (CRU/21/057) on a proposed Cost Recovery Model for EirGrid in developing the Celtic Electricity Interconnector. This consultation closed on 23<sup>rd</sup> July 2021. In that paper the CRU described and considered a range of regulated revenue models that could be applied to the Celtic Interconnector. The CRU also assessed EirGrid's regulatory framework request in this consultation. Following this review, the CRU was of the view that aspects of EirGrid's requested model did not sufficiently protect Irish customers from inefficient expenditure, particularly during the construction phase. Therefore, the CRU proposed a fully regulated cost recovery model, with a Two-Phase Funding Model. A summary of Consultation Paper (CRU/21/057) is provided in section 2 of this paper.

## CRU Decision

Following careful consideration, the CRU now confirms in this decision that a fully regulated cost recovery model with a Two-Phase Funding Model is the most appropriate approach. This model provides two separate approaches for the two distinct phases of the project, with Phase 1 being the Pre-operational phase (development and construction) and Phase 2

being the Operational phase. The CRU considers this model strikes an appropriate balance between ensuring adequate protection of electricity customers during the development and construction phase, of the project, when the financial risk exposure is higher, while also allowing EirGrid to finance the project by providing it with sufficient revenue to cover its debt service costs during construction. The risk exposure to customers could be higher during the construction phase due to delays and cost over-runs, however once commissioned, the ongoing risks associated with the project should be significantly reduced. As part of the Two-Phase Funding model, only once the interconnector is operational will EirGrid begin to earn both the debt service cost and return on equity incentivising timely delivery of the interconnector.

In Phase 1, the remuneration of the project will be limited to qualifying debt costs, with any returns for equity risk during that period being deferred to Phase 2. In Phase 2, a full Regulatory Asset Base (RAB) Weighted Average Cost of Capital (WACC) model will apply (referred to as the RAB x WACC model in this decision).

The figure below (figure 1) provides a summary of the key elements of the two-phase approach.

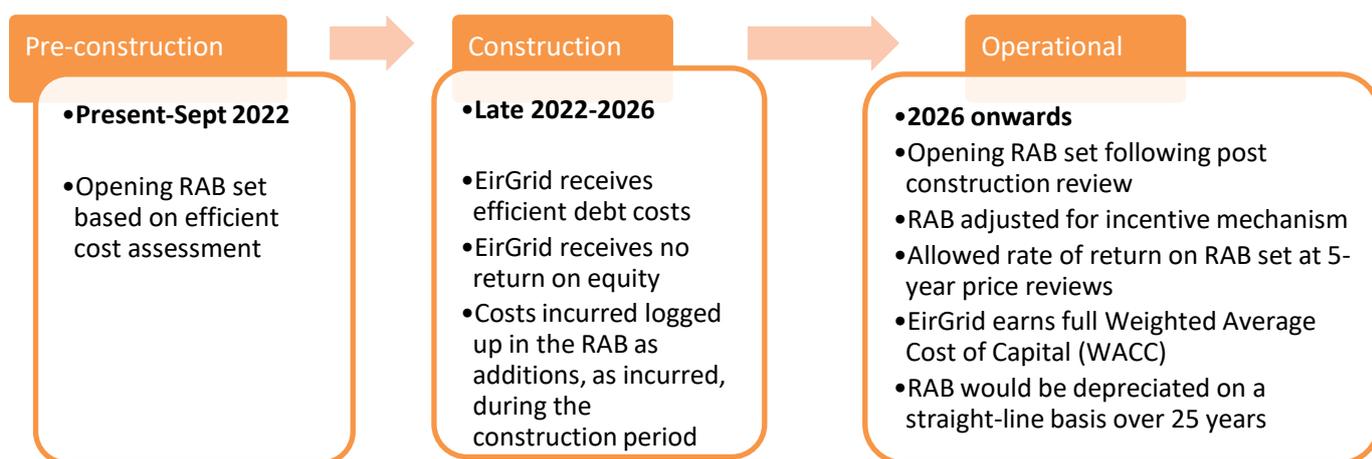


Figure 1: Summary of key elements of two-phase funding approach

Table 1 below provides a summary of the main elements of the cost recovery framework and identifies where they have changed from the Consultation Paper (CRU/21/057).

Topic area	Decision	Change from consultation proposal
<b>Phase 1 : Pre-operational phase (development and construction)</b>		
Opening RAB	Opening RAB to be set based on Celtic Interconnector’s pre-Final Investment Decision costs subject to prudence review.	No change
RAB additions	Costs incurred logged up in the RAB as additions, as incurred, during the construction period.	No change
Rate of return	EirGrid permitted to recover efficient debt service and liquidity costs as required during construction. EirGrid receives no return on equity until the project is operational.	No change
<b>Phase 2 : Operational phase</b>		
Opening RAB	Opening RAB for the operational phase set following a post-construction review, with adjustment for delivery incentive.	No change
Delivery incentive	Delivery incentive capped at 10% of notional equity invested in Celtic Interconnector by EirGrid, with specific parameters determined following the conclusion of the CRU’s cost assessment in 2022.	Sliding cap linked to efficient cost
Rate of return	EirGrid permitted to recover efficient cost of debt and return on equity from commissioning. Allowed rate of return set at 5-year price reviews, with the WACC set as a nominal WACC (implying no RAB indexation) and no minimum inflation threshold. This nominal WACC is to facilitate the financeability of the interconnector project.	Decision that there is no minimum inflation
Depreciation	RAB depreciated on a straight-line basis over 25 years from the date of commissioning.	No change
Operational costs	Costs are subject to periodic reset consistent with the wider framework for the determination of efficient costs	No change
Operational incentive	Operational incentive set consistent with CRU interconnector policy	No change

Table 1: Summary of CRU decision

## Next Steps

This paper sets out CRU’s final decision on the regulatory cost recovery model for the Celtic Electricity Interconnector.

The CRU will continue to engage with EirGrid on the detailed aspects of the regulatory cost recovery model (delivery incentives, operational incentives etc) and will determine these aspects as well as other elements necessary to allow the project to progress to FID in due course. In advance of FID CRU also expects to complete a detailed cost assessment for the delivery of the project. The outcome of this assessment will set the efficient cost limits for the project.

Should the outcome of the FID allow the project to proceed the CRU will develop a range of operational incentives and will consider the licencing and governance framework for the Celtic interconnector. The CRU will also carry out a post construction review once construction of the project is complete. This will set the final cost allowances for EirGrid.

Figure 2 below sets out the next steps that will be completed by the CRU in advance of the expected Final Investment Decision (FID) in September 2022.

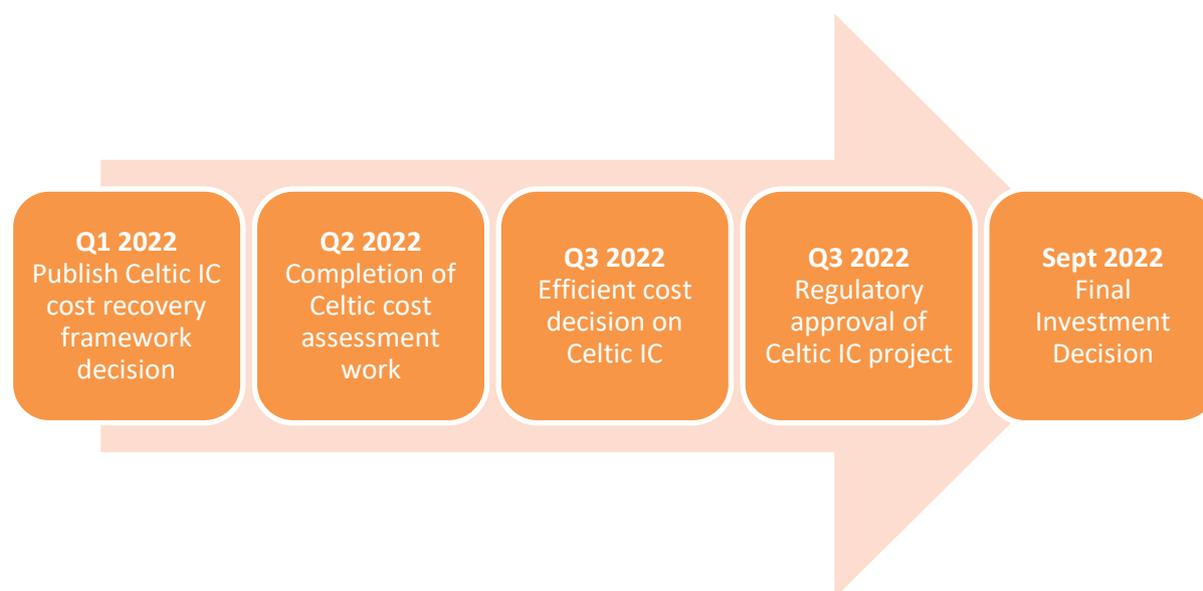
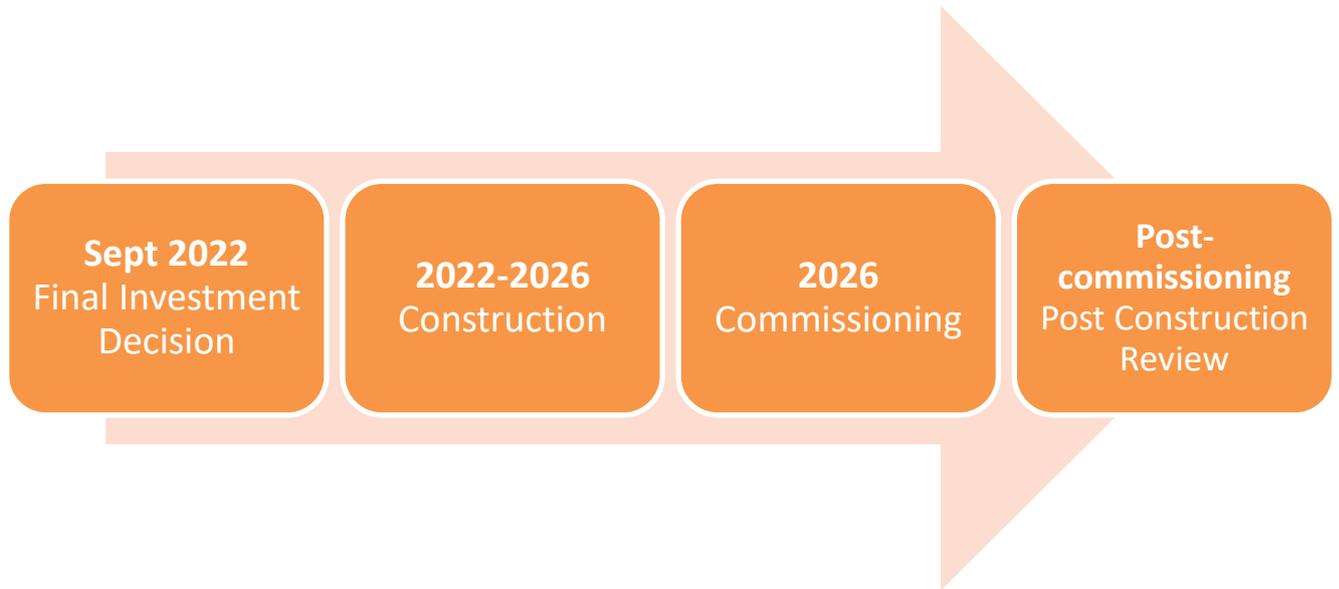


Figure 2: Next steps for CRU in advance Final Investment Decision (FID)

The timeline below in figure 3 further sets out an indicative timeline for the upcoming key stages of the overall delivery of the Celtic interconnector project:



*Figure 3 - Indicative Timeline of Next Steps for overall Celtic IC project*

## Public/Customer Impact Statement

Electricity interconnectors are physical transmission lines which allow the transfer of electricity across borders. New interconnectors in Ireland will be necessary for meeting the European Commission's 2030 interconnection targets (15% electricity interconnection target by 2030<sup>1</sup>) as Ireland transitions to a low carbon economy.<sup>2</sup> Connecting to different markets could be particularly beneficial for Ireland, as it will connect Ireland to the European Union energy market as well as the potential to reduce electricity prices and improve security of supply.

However, new interconnectors come at a cost to Irish electricity customers. In order to ensure that the cost is proportionate, the CRU determines how new interconnectors, which require regulatory underpinning, will recover their costs and be regulated. In addition to this, new interconnectors should be built only to the extent that they benefit the public at large.<sup>3</sup>

EirGrid, Ireland's Transmission System Operator (TSO), and its counterpart in France, Réseau de Transport d'Electricité (RTE), are currently carrying out a project to construct an Interconnector called the Celtic Interconnector between Ireland and France. It is currently anticipated that this interconnector will be fully operational by 2026. The Irish and French National Regulatory Authorities, CRU and CRE respectively, previously set out the benefits of the project to both countries which included solidarity and security of supply.<sup>4</sup>

The expected project costs at the time of the Cross-Border Cost Allocation (CBCA) were €930m.<sup>5</sup> The project has been approved for a total of c. €538m in EU grants, the remainder of the costs must be split between Ireland and France. European legislation sets out that efficiently incurred expenditure in relation to certain specified Projects of Common Interest (PCIs), such as the Celtic Interconnector, should be paid for by network users through tariffs where the costs have not been covered by the income the interconnector itself earns.<sup>6</sup> Therefore, Irish electricity customers, through EirGrid, will be required to cover 65% (or as per the CBCA estimates €255m) of the project costs, less congestion rent (revenue the

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<sup>1</sup> Defined as import capacity over installed generation capacity.

<sup>2</sup> See : <https://ec.europa.eu/energy/en/topics/infrastructure/projects-common-interest/electricity-interconnection-targets>

<sup>3</sup> That is, as long as the benefits of adding interconnection capacity outweigh or equal the costs.

<sup>4</sup> Celtic Interconnector CRU Assessment of the Celtic Investment Request (CRU/18/265), available at: <https://www.cru.ie/wp-content/uploads/2019/01/CRU18265-Celtic-Interconnector-CRU-assessment-of-the-Celtic-investment-request-Consultation-Paper.pdf>

<sup>5</sup> The CRU has since been notified of an increase of €84.5m in base costs and a further €101.5m in additional contingency. The CRU is engaging with EirGrid on these cost increases and will be carrying out cost assessments throughout this project.

<sup>6</sup> Article 12 (1) of the TEN-E Regulations.

interconnector will earn itself) and any other revenues, through tariffs. As part of the cost recovery model determined in this paper, the CRU will carry out a process to set an efficient delivery cost which will only allow for efficiently incurred costs.

EirGrid is expected to finance the project upfront through a mix of borrowing and equity it has available on its balance sheet (i.e. debt and equity) and recover this expenditure afterwards through a regulatory cost recovery model. This regulatory cost recovery model will determine how much revenue EirGrid will recover in respect of the interconnector for a specified time.

There are different approaches to regulating interconnectors which can be implemented in various ways. Some regulatory cost recovery models available for interconnectors guarantee the revenue to be earned each year, potentially partly through customer tariffs. Therefore, the CRU has a role to play in ensuring that the costs incurred by the project promoters are efficient, that the regulatory cost recovery model decided upon is fair for both electricity customers and the party undertaking the project.

EirGrid submitted a request for a fully regulated cost recovery model to the CRU which the CRU has reviewed. The CRU proposed in the consultation (CRU/21/057) a cost recovery model which took elements of EirGrid's request while modifying the request in order to provide additional protection for electricity customers by incentivising EirGrid to deliver the project on time and in line with a pre-determined cost. The cost recovery model described in this decision paper sets out a fully regulated cost recovery model with a Two-Phase Funding Model approach, similar to that proposed in the consultation (CRU/21/057). This approach seeks to align the interests of EirGrid with the Irish customer as it would allow EirGrid an opportunity to earn additional equity where it achieves the project on time and on cost. The CRU is of the view that the cost recovery model strikes an appropriate balance between ensuring EirGrid can finance and progress the project and that Ireland and France can realise the benefits associated with the interconnector, while ensuring customer protection.

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**Glossary of Terms and Abbreviations**

<b>Abbreviation or Term</b>	<b>Definition or Meaning</b>
<b>Capex</b>	Capital Expenditure
<b>CAPM</b>	Capital Asset Pricing Model
<b>CBA</b>	Cost Benefit Analysis
<b>CBCA</b>	Cross Border Cost Allocation
<b>CEF</b>	Connecting Europe Facility
<b>CRE</b>	Commission de régulation de l'énergie (French Energy Regulatory Commission)
<b>CRU</b>	Commission for Regulation of Utilities
<b>DSCR</b>	Debt Service Cover Ratio
<b>EU</b>	European Union
<b>EWIC</b>	East West Interconnector
<b>FID</b>	Final Investment Decision
<b>HICP</b>	Harmonised Index of Customer Prices
<b>IDC</b>	Interest during Construction
<b>NRA</b>	National Regulatory Authority
<b>O&amp;M</b>	Operational and Maintenance
<b>Opex</b>	Operational expenditure
<b>PCI</b>	Project of Common Interest
<b>RAB</b>	Regulated Asset Base
<b>RTE</b>	Réseau de Transport d'Electricité (French TSO)
<b>TEN-E</b>	Tans-European Energy Infrastructure (EU Regulation 347/2013)

<b>Abbreviation or Term</b>	<b>Definition or Meaning</b>
<b>TSO</b>	Transmission System Operator
<b>TUoS</b>	Transmission Use of System Charge
<b>WACC</b>	Weighted Average Cost of Capital

# 1. Introduction

## 1.1. Commission for Regulation of Utilities

The Commission for Regulation of Utilities (CRU) is Ireland's independent energy and water regulator. The CRU's mission is to protect the public interest in Water, Energy and Energy Safety. The work of the CRU impacts every Irish home and business. The sectors the CRU regulates underpin Irish economic competitiveness, investment and growth, while also contributing to our international obligations to address climate change.

The CRU is committed to playing its role to help deliver a secure, low carbon future at the least possible cost, while ensuring energy is supplied safely, empowered and protected customers pay reasonable prices and the CRU delivers a sustainable, reliable and efficient future for energy and water.

The CRU is guided by four strategic priorities that sit alongside the core activities the CRU undertakes to deliver on the public interest. These are:

- Deliver sustainable low-carbon solutions with well-regulated markets and networks;
- Ensure compliance and accountability through best regulatory practice;
- Develop effective communications to support customers and the regulatory process;
- Foster and maintain a high-performance culture and organisation to achieve our vision.

Further information on the CRU's role and relevant legislation can be found on the CRU's website at [www.cru.ie](http://www.cru.ie).

## 1.2. Background

The Celtic Interconnector Project is a project to construct a proposed 700MW subsea electrical cable that would link the electricity transmission systems of Ireland and France to enable the two countries to export or import electricity from each other. This project is being promoted by EirGrid and Réseau de Transport d'Électricité (RTE), who are the Transmission System Operators (TSOs) in Ireland and France respectively. Figure 4 below provides an illustration of the interconnector.

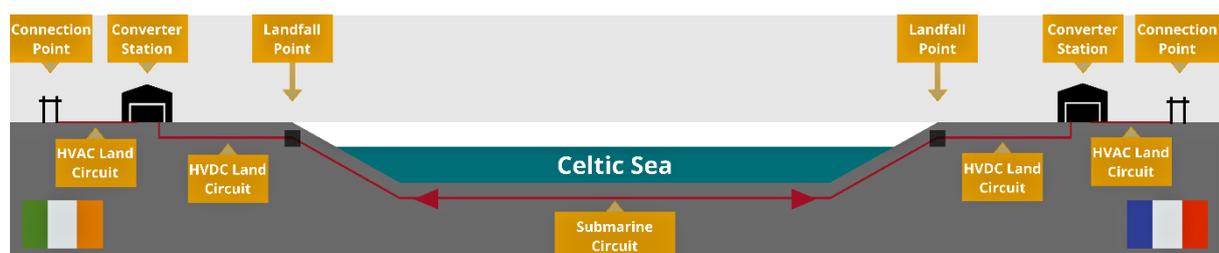


Figure 4 Celtic Interconnector, Source: Celtic Investment Request Figure 1

For Ireland, Celtic would be the first direct energy link to continental Europe and the only link to the European Union energy market post Brexit.

The Celtic Interconnector project is a project of common interest (PCI) which means that it is considered key in completing the European energy market and helping the EU achieve its energy policy and climate objectives. Given their importance, PCIs can benefit from streamlined planning processes, improved regulatory conditions and possible EU financial assistance from the Connecting Europe Facility (CEF).

The TEN-E Regulations (EU) 347/2013 set out the legal framework for PCIs. In particular, Article 12 states that the efficiently incurred investment costs related to a PCI shall be paid for by users of the transmission infrastructure in the Member States to which the project brings a net positive impact insofar as these costs are not covered by congestion rent. This means that investment costs of cross-border PCIs, such as Celtic, are shared between the countries hosting them and included in their national network tariffs to the extent that the costs are not recovered through congestion rent (i.e. the money which the interconnector earns itself on a commercial basis).

### 1.3. EirGrid Cost Allocation Request

In September 2018, Celtic's project promoters (EirGrid and RTE) submitted an Investment Request to the CRU, and separately, to the Commission de régulation de l'énergie (CRE) in accordance with the requirements of the TEN-E Regulations. The submissions included a Cost Benefit Analysis (CBA) and a request for the costs of Celtic to be included in each country's network tariffs, as well as a request for the NRAs to issue a Cross Border Cost Allocation (CBCA) decision. A non-confidential version of the Investment Request has been published.<sup>7</sup>

<sup>7</sup> Celtic Interconnector Project Investment Request File 7 September 2018, (CRU/18/265a), available at: <https://www.cru.ie/wp-content/uploads/2018/12/CRU18265a-Celtic-Investment-Request.pdf>

### 1.3.1 Cross Border Cost Allocation Decision

In 2018, both the CRU and CRE carried out an assessment of the Celtic Interconnector in order to determine the benefits of the interconnector, as well as a CBCA assessment to determine how the costs should be allocated between Ireland and France for this project. As part of this process, the CRU's modelling found that:

- the potential socio-economic welfare (SEW) benefits of Celtic were uncertain;
- the security of supply benefits associated with Celtic were much lower in comparison to Transmission System Operators' (TSO) estimates; and
- the net benefits for Ireland were relatively consistent with the TSOs' forecast.

Overall, the CBA modelling indicated that Celtic would drive benefits for both Irish and French consumers even when excluding potential security of supply benefits. In relation to Celtic's costs, and its regulatory treatment, the CRU found that:

- The cost benchmarking suggests that Celtic may turn out being more expensive than projected by the TSOs. The CRU estimated that Celtic's investment cost may be up to 20% more than the TSOs' estimate of €930m (with a -€110m to +€140m uncertainty range)<sup>8</sup>;
- Overall, despite its potential benefits, it was found that Celtic would have a significant material impact on the Irish consumers, much higher than in other EU countries given the relatively high investment cost and the small size of the Irish market.

In April 2019, the CRU and the CRE published a coordinated decision on Celtic's Investment Request.<sup>9</sup> This decision was issued on the proviso that financial assistance be granted from the CEF fund for at least 60% of the project's estimated investment costs. It was also determined that the project costs, including any CEF grant, up to the project's estimated investment costs (at that time, €930m) should be split with 65% of the investment costs allocated to Ireland and 35% to France. This reflected the benefits of the project to each country.

In October 2019, Celtic was awarded a CEF grant of €530.7m which corresponded to 57% of the total estimated investment cost of the project of €930m. However, this was in addition to €7m already awarded to the project at earlier stages (totalling almost 58% of the total estimated investment cost of the project). As this fell short of the 60% minimum on which the CBCA decision was conditional, the NRAs reviewed the CBCA decision.

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<sup>8</sup> This means that the assessment found that the likely cost range could be as low as €930m - €110m, i.e. €820m or as high as €930m + €140m i.e. €1,070m.

<sup>9</sup> Available at: <https://www.cru.ie/wp-content/uploads/2019/05/CRU19051-Celtic-CBCA-decision.pdf>

The NRAs decided that the level of financial assistance awarded was close to the minimum amount set in the original CBCA decision and therefore did not put excessive risk on French and Irish consumers. It was therefore concluded that there were no grounds to amend the cost allocation of 65% to Ireland and 35% to France.<sup>10</sup> The following decisions were also affirmed in the revised CBCA decision:

- Any costs above the project's estimated investment costs should be split equally (i.e. 50% each) between EirGrid and RTE;
- The project's operational and maintenance (O&M) costs, and revenues from congestion rents would be shared equally (i.e. 50% each) between Eirgrid and RTE;
- Should the cost of the main supply contracts materially exceed the estimated costs (i.e. by 20%) or that the total costs of the project are reviewed significantly upwards (i.e. by 20% ), the CRU and the CRE agree to review their decision in order to reconsider the opportunity to invest in the project and/or the cross-border cost allocation decision regarding cost overruns.

In March 2021, EirGrid provided information to the CRU setting out that the base cost estimate for the project had increased from **€930m** to **€1,014.5m**. A further increase in contingencies of **€101.5m** was also notified to the CRU. The CRU is continuing to assess the efficient cost of the delivery of Celtic IC. CRU is engaging with EirGrid on this matter and this assessment is expected to be completed in Q2 2022 and in advance on the final approval by CRU for EirGrid to proceed to the final investment decision in Q3.

## 1.4. Purpose of Paper

The purpose of this paper is to set out the CRU's assessment of EirGrid's cost recovery model request for the Celtic interconnector and to determine how its costs should be recovered and enable the project to progress. Following this decision, further aspects of the overall Regulatory Framework, including licensing, governance and cost assessments, will also be determined in due course.

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<sup>10</sup> Available at: <https://www.cru.ie/wp-content/uploads/2019/10/CRU19125-revised-CBCA-decision.pdf>

## 1.5. Related Documents

- [Regulation \(EU\) 347/2013](#) on guidelines for trans-European energy infrastructure (the TEN-E Regulation), 17 April 2013;
- [CER/17/007](#) - Celtic Interconnector Next Assessment Phase, 2 February 2017;
- [CRU/18/265a](#) – Celtic Interconnector Project Investment Request, 7 September 2018;
- [CRU/18/265](#) – Celtic Interconnector CRU Assessment of the Celtic Investment Request Consultation Paper, 15 February 2019;
- [CRU/19/051](#) – Coordinated decision on the cross-border cost allocation request submitted by the Celtic Interconnector project, 30 May 2019;
- [CRU/19/063](#) – Celtic Interconnector – consultation results Information paper accompanying the coordinated cross-border cost allocation decision under Article 12 of Regulation (EU) 347/2013, 30 May 2019;
- [CRU/19/125](#) – Review of the coordinated decision on the cross-border cost allocation request submitted by the Celtic Interconnector project following the results of the second Connecting Europe Facility energy call 201, 10 October 2019.
- [CRU/21/057](#) – Consultation on Celtic interconnector cost recovery framework

## 1.6. Structure of Paper

This paper is structured as follows:

- **Section 1** provides introduction to the CRU and background information to this paper;
- **Section 2** sets out high-level summary of the consultation paper (CRU/21/057);
- **Section 3** sets out a summary of comments received to consultation (CRU/21/057), and CRU response;
- **Section 4** sets out the CRU's decision on cost recovery model for the Celtic Interconnector; and
- **Section 5** summarises the next steps.

## 2. Consultation summary

### 2.1. EirGrid's Regulatory Framework Request

As described in consultation CRU/21/057 EirGrid first submitted its request for a cost recovery model in respect of the Celtic Interconnector in April 2020. The CRU reviewed this submission and engaged with EirGrid on its request. Following the CRU's decision on Price Review 5 in December 2020,<sup>11</sup> EirGrid submitted an updated request in February 2021. A non-confidential version of this request was published alongside the consultation paper CRU/21/057.<sup>12</sup>

The consultation paper CRU/21/057 provided a summary of EirGrid's request for a cost recovery model. EirGrid requested a cost recovery model that is a fully regulated approach. A summary of its request is set out in table 2 below:

Cost Recovery Model Request	
<b>To be included in EirGrid TSO</b>	The interconnector asset would be integrated into EirGrid's TSO activities.
<b>Regulatory framework</b>	Regulatory treatment of the interconnector to build on RAB x WACC regime for TSO price-controlled activities.
Capex	
<b>Capex net of grant added to RAB</b>	EirGrid's share of all project capex (net of the CEF grant) added to TSO's RAB.
<b>Basis of WACC</b>	Set equal to extant price control WACC, e.g., PR6, PR7, PR8.
<b>Nominal WACC, no indexation</b>	Allowed WACC set in real terms, to which Irish HICP is added and applied in nominal terms, (i.e. no RAB indexation).
<b>WACC inflation</b>	The minimum inflation rate that can be used in the nominal WACC estimate is zero.
<b>Minimum DSCR</b>	Allowed WACC shall be such that Debt Service Coverage Ratio (DSCR) shall be at least 1.8x in each period. <sup>13</sup>

<sup>11</sup> Available at: <https://www.cru.ie/wp-content/uploads/2019/05/CRU19051-Celtic-CBCA-decision.pdf>

<sup>12</sup> [https://www.cru.ie/document\\_group/celtic-electricity-interconnector/](https://www.cru.ie/document_group/celtic-electricity-interconnector/)

<sup>13</sup> Note that EirGrid has requested that this apply to all TSO assets and not just the Celtic interconnector.

<b>Depreciation</b>	From Final Investment Decision (FID) additions to the RAB will be written down from the date they are incurred and returned to EirGrid over 25 years on a straight-line basis.
<b>Incentive package</b>	Any form of financial delivery incentive – e.g. timely and cost-effective delivery – to be no greater in total than €11.5m and any reward or penalty to be spread over 10 years.
<b>Opex</b>	
<b>Opex</b>	Costs are subject to periodic reset consistent with the wider framework for the determination of efficient costs for the fulfilment of the TSO functions by the CRU.

Table 2 - Summary of EirGrid's Requested Cost Recovery Model

In consultation CRU/21/057 the CRU recognised that EirGrid, as an asset light entity, had structured their request in such a way that it could meet its financing obligations. It was described how the CRU, in reviewing EirGrid's submission, aimed to balance EirGrid's ability to finance this project with measures to protect customers, having regard to the benefit from the use of the interconnector customers will receive.

The CRU also acknowledged that, EirGrid's role as the TSO and Electricity Market Operator, could result in potential conflicts of interest, or indeed perceived conflicts of interest, and therefore recognised the need for the cost recovery model to assist in avoiding this. CRU committed to undertake a separate governance review in due course which will address areas including governance arrangements around the Celtic Interconnector within EirGrid.

Table 3 below summarises the CRU's assessment of EirGrid's proposal in CRU/21/057:

	<b>Cost Recovery Model Request</b>	<b>CRU Assessment</b>
<b>To be included in EirGrid TSO</b>	The interconnector asset would be integrated into the EirGrid TSO activities.	Alternative proposed
<b>Regulatory framework</b>	Regulatory treatment of the interconnector to build on RAB x WACC regime for TSO price-controlled activities.	Partially accepted
<b>Capex</b>		

<b>Capex net of grant added to RAB</b>	EirGrid's share of all project capex (net of the CEF grant) added to TSO's RAB.	Alternative proposed
<b>Basis of WACC</b>	Set equal to extant price control WACC, e.g. PR6, PR7, PR8.	Alternative proposed
<b>Nominal WACC, no indexation</b>	Allowed WACC set in real terms, to which Irish HICP is added and applied in nominal terms, (no RAB indexation).	Accepted
<b>WACC inflation</b>	The minimum inflation used in the nominal WACC estimate is zero.	To be determined at a later date
<b>Minimum DSCR</b>	Allowed WACC shall be such that DSCR shall be at least 1.8x in each period.	Alternative proposed
<b>Depreciation</b>	From FID, the RAB will be written down and returned to EirGrid over 25 years on straight-line basis.	Partially accepted
<b>Incentive package</b>	Any form of financial delivery incentive – e.g., timely and cost-effective delivery – to be no greater in total than €11.5m and any reward/penalty to be spread over 10 years.	Alternative proposed
<b>Opex</b>		
<b>Opex</b>	Costs are subject to periodic reset consistent with the wider framework for the determination of efficient costs for the fulfilment of the TSO functions by the CRU.	Partially accepted

Table 3 - CRU Assessment of EirGrid's Proposal

It was described in the consultation paper CRU/21/057 how following the CRU's review of EirGrid's request, that CRU was of the view that some modifications were required to provide additional customer protection measures to align its interests with those of customers.

## 2.2. CRU Proposed Cost Recovery Model

In consultation paper CRU/21/057 the CRU proposed a framework which aims to align the interests of electricity customers and EirGrid while enabling EirGrid to progress and finance this project.

As outlined in the consultation, the Two-Phase Funding model would provide two separate approaches for the two phases of the project with Phase 1 being the Pre-operational phase (development and construction) and Phase 2 being the Operational phase. In Phase 1, the remuneration of the project would be limited to qualifying debt costs. In Phase 2, a full RAB x WACC model would apply with EirGrid permitted to recover their efficient cost of debt and a return on equity.

Table 4 below provides a summary of the key elements of the proposed two-phase approach:

Phase 1: Pre-operations	Phase 2: Operational
<p><b>Opening RAB</b></p> <ul style="list-style-type: none"> <li>Opening RAB to be set based on Celtic Interconnector’s pre-FID costs subject to prudence review.</li> </ul> <p><b>RAB additions during construction</b></p> <ul style="list-style-type: none"> <li>Costs incurred logged up in the RAB as additions, as incurred, during the construction period.</li> </ul> <p><b>Investor returns during construction</b></p> <ul style="list-style-type: none"> <li>EirGrid permitted to recover efficient debt service and liquidity costs as required during construction;</li> <li>EirGrid receives no return on equity until the project is operational.</li> </ul>	<p><b>Opening RAB</b></p> <ul style="list-style-type: none"> <li>Opening RAB for operational phase set following a post-construction review of outturn versus efficient delivery cost;</li> <li>RAB adjusted to reflect reward or penalty from the delivery incentive;</li> </ul> <p><b>Rate of return and depreciation</b></p> <ul style="list-style-type: none"> <li>Allowed rate of return on RAB set at 5-year price reviews consistent with the operational risk of the interconnector;</li> <li>Allowed rate of return on the RAB would be set based on principles set ahead of FID;</li> </ul>

	<ul style="list-style-type: none"> <li>• The RAB would be depreciated on a straight-line basis over 25 years from the date of commissioning.</li> </ul>
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Table 4 - Summary of the key elements of the Two-Phase Funding Approach

It was described in the consultation paper CRU/21/057 how the two-phase funding model would operate. More details of the proposed approach are outlined below.

#### *Phase 1 – Pre operation*

- The CRU would establish an opening RAB for the Celtic interconnector equal to EirGrid’s efficient and prudently incurred costs prior to Final Investment Decision for the Celtic interconnector. Capex, net of the CEF grant, during construction would be added to the RAB as incurred over the course of the construction period;
- EirGrid would be permitted to recover its efficient costs of debt<sup>14</sup> raised to finance the interconnector capex during construction;
- The permitted revenues during construction would be sufficient to cover the efficient and prudently incurred debt interest, fees and any liquidity costs attributable to financing of the Celtic interconnector.<sup>15</sup> The revenues would not provide any return on invested equity in the project during construction; and
- Permitted revenues during construction would be solely funded from the TSO TUoS revenue requirement given that the interconnector would have no market revenues at this phase of the project.

#### *Phase 2 – Operational*

- The CRU would confirm the opening RAB value for the Celtic interconnector for the operational period following a post construction review to compare the outturn cost against the efficient delivery cost. The RAB value determined by the CRU would be subject to EirGrid’s performance against an efficient delivery investment cost for Ireland’s share of project capex, net of the CEF grant and a target completion date. The allowed opening RAB would be adjusted accordingly;
- During the operational period, EirGrid would be permitted to recover revenues that consist of a series of building blocks:

<sup>14</sup> Efficient cost of debt would include the debt facilities required to finance construction i.e. interest, lender arrangement fees and commitment fees on undrawn amounts. The CRU will engage with EirGrid following a final decision on this in order to determine what is to be included in this.

<sup>15</sup> The CRU assumes that no debt principal payments would apply before the project is commissioned.

- Efficient opex, which would be subject to periodic reset by the CRU at five-year price control review intervals but separate to the TSO's opex;
  - Depreciation of the RAB from the date of commissioning over 25-years on a straight-line basis;
  - An allowed return on a pre-tax basis on the RAB that is periodically reset by the CRU.
- EirGrid's permitted revenues during operation would be funded from the interconnector's market revenues and the TSO TUoS revenue requirement. Revenues provided from TUoS would provide a top-up to the Celtic's interconnector's permitted revenue requirement if the project's market revenues are lower than permitted revenues.<sup>16</sup>

It was described how the CRU is proposing incentives linked to project availability, to ensure EirGrid operates the Celtic interconnector in an appropriate manner, with the details to be considered following this decision on the cost recovery model.

The consultation described the arrangements should the project not proceed to completion. In this situation, EirGrid had requested the expenditure incurred to that point would be returned to EirGrid through customer tariffs over a reasonable period of time. The CRU proposed to allow this approach but only where specific requirements have been met, such as the project not proceeding due to factors outside of EirGrid's control. The CRU would determine these circumstances in due course.

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<sup>16</sup> If market revenues exceed the interconnector's permitted revenues, then EirGrid would return the revenues earned above permitted revenues to electricity customers via TUoS charges.

## **3. CRU Cost Recovery Model decision**

### **3.1. Introduction**

Having reviewed EirGrid's request in detail and following the consultation on the proposed cost recovery model (CRU/21/057) the CRU has decided to implement a fully regulated cost recovery model for the Celtic interconnector. This follows consideration of comments raised by respondents regarding the risks to the electricity customer and also EirGrid's ability to secure finance for the project. The CRU has engaged in extensive dialogue with EirGrid and its advisors following the consultation process. The CRU considers that the approach set out in this decision balances the need for EirGrid to finance and progress the project, against the CRU's objectives to protect the electricity customer from inefficient costs and provide value for money. Full details on this decision are outlined below.

### **3.2. Two-Phase Funding Model**

The CRU has decided to grant EirGrid a fully regulated regulatory model consisting of two phases:

Phase 1 – Pre Operational (i.e. developments & construction)

Phase 2 - Operational.

The CRU has determined that the Two-Phase Funding Model is the most appropriate approach, with Phase 1 being the Pre-operational phase (development and construction) and Phase 2 being the Operational phase. In Phase 1, the remuneration of the project will be limited to qualifying debt costs. At the end of Phase 1 there will be a post-construction review to determine the efficiently incurred costs that will be added to the RAB. This would then determine the starting RAB for Phase 2. In Phase 2, a full RAB x WACC model will apply.

The Celtic Interconnector will be placed on a separate RAB to the TSO activities with efficiently incurred capex added to the RAB during Phase 1. Once commissioned, EirGrid will begin to depreciate the RAB over 25 years and earn an agreed return on the asset.

An efficient delivery cost for the project will be set, following a detailed cost assessment, at the outset of implementation of the two-phase model. If EirGrid deliver the project on or below the efficient delivery cost, it will earn an additional equity reward, which would be set

proportionate to the capital at risk in the project. However, if the outturn project costs exceed the agreed efficient delivery cost, EirGrid would incur a penalty. A similar arrangement would be in place for the delivery of the project on time.

Figure 5 below provides a summary of the key elements of the two-phase approach.

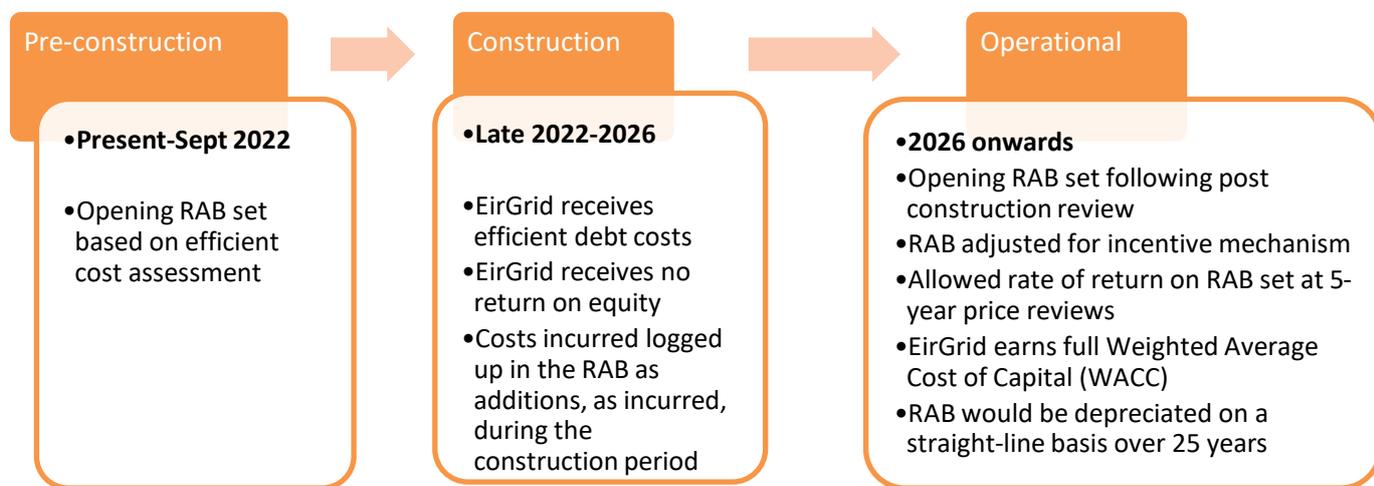


Figure 5: Summary of key elements of two-phase funding approach

These separate elements of the framework are described in more detail below.

### 3.3. Phase 1 – Pre Operational (i.e. developments & construction)

#### Summary of Decisions

Topic area	Decision
Opening RAB	Opening RAB to be set based on Celtic Interconnector’s pre-FID costs subject to prudency review.
RAB additions	Costs incurred logged up in the RAB as additions, as incurred, during the construction period.
Rate of return	EirGrid permitted to recover efficient debt service and liquidity costs as required during construction. EirGrid receives no return on equity until the project is operational.

Table 5: Summary of phase 1 decisions

### **3.3.1 Opening RAB**

In the two-phase model, the phase 1 opening RAB will be determined based on efficient costs incurred up until the Final Investment Decision (FID) stage. As these costs are currently incurred, they are placed in a side RAB within the TSO price control, which EirGrid are earning a return on. However, the side RAB is not being depreciated. The CRU is currently reviewing these costs to ensure that only efficient costs are allowed in order to represent value for money for electricity customers.

Under the two-phase funding model, the outcome of the above process will become the opening RAB for the Celtic interconnector. As further efficient costs are incurred during the construction phase of the interconnector, these costs will need to be added to the RAB. At the end of the construction period, delivery incentives may also adjust the RAB reflecting any possible reward earned or penalty incurred by EirGrid. The RAB will not be depreciated until the interconnector becomes operational and customers are benefitting from it.

The CRU decision is to have a separate RAB for the Celtic Interconnector, ring-fenced and with accounting separation from EirGrid plc.'s other business areas. This treatment will ensure that the interconnector's regulated revenues are kept separate from the wider EirGrid asset base and enable transparent oversight of the interconnector's operation and finances.

In response to the consultation, EirGrid highlighted that they would be required to separate and report costs for the Celtic Interconnector for other purposes, and as such, a separate RAB may not be required. While the CRU acknowledges this, it notes that the reporting would not necessarily align with what is required for the TSO price control. This treatment will ensure that the interconnector's regulated revenues are kept separate and enable transparent oversight of the interconnector's operation and finances alongside the TSO price control activities.

### **3.3.2 Return during construction**

The CRU has decided to allow EirGrid to recover their efficient cost of debt service during construction. The CRU will engage with EirGrid following this decision to determine what would be included in this (i.e. interest, arrangement costs etc.). Under this approach, and as described in the two-phase model, EirGrid will receive no return on equity until the project is operational. This approach will still ensure EirGrid has sufficient debt service cost cover

during construction. This approach is consistent with the financing arrangements for RTE’s portion of the Celtic interconnector, set by the French National Regulatory Authority, CRE.

### **3.3.3 Post construction review**

The post-construction review will confirm the opening RAB value for the Celtic interconnector for the operational period, comparing the outturn cost post construction against the efficient delivery cost (determined pre-Final Investment Decision). The CRU has determined that an efficient delivery cost for the project will be set before the Final Investment Decision, following a detailed cost assessment. This will determine the opening RAB for the project, subject to any adjustments resulting from the application of the delivery incentive. Once construction has been completed, the CRU will determine the closing RAB for phase 1.

A comparison between the outturn cost and the efficient delivery cost will take place to determine whether a reward or penalty should be applied to the RAB. Following post-construction review this will then become the opening RAB for phase 2. The post construction review adjustment is dependent on the CRU’s assessment of EirGrid’s performance under the delivery incentive mechanism, which may have the effect of uplifting or reducing the RAB depending on performance. If the interconnector’s total investment cost is below the efficient delivery cost, the CRU would put in place a mechanism to return the difference to EirGrid and customers. As the WACC will take inflation into account, the RAB will not be indexed for inflation in order to avoid double-counting. This post construction review will adopt similar principles as the post construction review used for other interconnectors i.e. the Greenlink interconnector.

## **3.4. Phase 2 – Operational**

### **Summary of Decisions**

Topic area	Decision
Opening RAB	Opening RAB for operational phase set following a post-construction review, with adjustment for delivery incentive.

Delivery incentive	Delivery incentive capped at 10% of notional equity invested in Celtic Interconnector by EirGrid, with specific parameters determined following the conclusion of the CRU's cost assessment in 2022.
Rate of return	EirGrid permitted to recover efficient cost of debt and return on equity from commissioning. Allowed rate of return set at 5-year price reviews, with the WACC set as a nominal WACC (implying no RAB indexation) and no minimum inflation threshold.
Depreciation	RAB depreciated on a straight-line basis over 25 years from the date of commissioning.
Operational costs	Costs are subject to periodic reset consistent with the wider framework for the determination of efficient costs
Operational incentive	Operational incentive set consistent with CRU interconnector policy

*Table 6: Summary of phase 2 decisions*

### 3.4.1 Return on investment

As part of the Two-Phase Funding model once the interconnector is operational EirGrid will begin to earn the debt service cost and return on equity.

The CRU has decided that the WACC for the Celtic Interconnector will be set periodically in the price control process (e.g. PR6, PR7, PR8) as is the established practice for the TSO, TAO and DSO. This decision was made based on feedback from EirGrid through the consultation process, with a focus on the need for a clear and well-established process, and in consideration of the risks relating to the ability of EirGrid to finance the construction of such a large asset.

The regulatory process, and assessment used for the Price Review cost of capital decisions and regulatory settlement is transparent and well documented. It provides certainty on the methodology that will be applied to Celtic, being well established over the last 20 years, and so is well understood across stakeholder groups, including banks and financial institutions.

This stability is reflected in Moodys statement<sup>17</sup> in relation to ESB in 2021: *“Following the determination, we increased the score for the “Stability and Predictability of the Regulatory Regime” to Aaa from Aa under our methodology for regulated electric and gas networks, reflecting the transparency of decision-making, the CRU's long track record of stable, predictable and independent regulation, and the consistent application of well-established principles that clearly define risk allocation between companies and customers.”*

Setting the WACC within the existing price control process will remove the need for a separate process to establish the WACC for the Celtic Interconnector. Future price reviews will take into account EirGrid's overall asset base to determine a relevant notional gearing and cost of equity for the TSO, taking into account the Celtic interconnector, along with the latest market information on the WACC parameters. The WACC applied to the TSO's RAB in that case would implicitly account for differences in the financial structure of the Celtic Interconnector and the TSO's existing asset base.

The responsibilities of the CRU, as established in the Electricity Regulation Act, as amended ('the Act'), help to determine the key factors considered as part of this assessment. Under Section 9 (3) of the Act, it is the duty of the Commission to carry out its duties in a manner which protects the interests of final customers. In the case of this regulatory framework, the CRU considers the interests of final customers to be met by allowing only efficient costs to be recovered and providing sufficient protections for customers while allowing EirGrid to finance and progress the project. Under Section 16A of the Act, regarding construction of an interconnector the Commission must be satisfied that the interconnector is subject to such conditions as the Commission deems necessary and appropriate and is in the longer term interests of final customers. The CRU considers that the regulatory framework outlined in this decision provides a framework that will enable EirGrid to successfully finance the delivery of the interconnector and to service its debt costs.

In the specific case of the cost recovery model for the Celtic Interconnector the CRU is allowing a nominal WACC, this is in line with EirGrid's regulatory framework request. The CRU considers this to be justified in these specific circumstances as a measure to improve the financeability of the project, recognising the limitations that Celtic may face in raising finance for this project. Using a nominal WACC instead of a real WACC should improve the financeability of the Celtic project by allowing it to recover revenues related to inflation each year, rather than delaying recovery through the RAB. The CRU's decision to allow this

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<sup>17</sup> [moodys-credit-opinion-esb-may-2021](#)

arrangement in these specific circumstances should not be seen as setting a precedent to allow a nominal WACC in other circumstances going forward and this decision is specific to the Celtic Interconnector. Irrespective of whether the CRU chooses to consider the capital structure and requirements of the TSO as a whole, or separately for the Celtic interconnector, an additional step will be required as part of the PR6 process (and onwards) to convert this real WACC to a nominal WACC which will then be applied to the Celtic interconnector RAB.

The CRU has also decided to apply a WACC in which no minimum inflation threshold would apply. Further details on treatment of inflation will be determined as part of the next price control and will be consistent with the existing price control process.

### **3.4.2 Depreciation**

The CRU has decided to depreciate the RAB from the point of commissioning on a straight-line basis over 25 years. The RAB will begin to be depreciated as customers start benefitting from the operation of the interconnector. Depreciating the asset from the point of commissioning provides a stronger incentive for successful implementation, as EirGrid will not be remunerated until the interconnector becomes a useable asset. Also, this approach improves inter-generational equity among Irish electricity customers, by avoiding consumers paying for the interconnector before they can benefit from its services and smoothing out the tariff impacts associated with the costs of the interconnector. It should be noted, however, that the actual or technical lifetime of the asset is expected to far exceed this time period.

### **3.4.3 Delivery incentives**

The CRU has decided to include an incentive element as part of the two-phase funding model in the form of a RAB reward or penalty. This mechanism will have an upside and downside incentive which means that if EirGrid deliver the interconnector below a certain cost and in line with the expected timeframe, EirGrid will receive an additional contingent uplift to the RAB (a 'notional equity reward'). This will be depreciated and returned to EirGrid once the interconnector becomes operational. However, should the final costs be above a certain threshold and/or the interconnector is not delivered on time, EirGrid will be penalised by reducing the equity proportion of the RAB (i.e. the penalty would be netted off the RAB).

In EirGrid's response to consultation CER/21/057 they outlined their concern that a cap must be specified on any downside risk. The CRU has considered this risk and recognise the need to specify a cap on downside risk. However, in CRU's view this cap only applies to delivery downside risk, with operational incentives separate to this. Also given that cost of the project is currently unknown, the CRU decided to set a sliding cap which prevents the impact of the incentive from being diluted should costs increase. The exact incentive cap will be specified when the efficient costs of the project are determined by the CRU at the pre-construction phase. To overcome this uncertainty for EirGrid the CRU proposes a sliding incentive cap that adjusts to reflect changes in the efficient cost of the project. In their regulatory framework request submission EirGrid proposed setting an incentive cap of €11.5m, equivalent to 10% of notional equity  $((€930m - €537.5m) * 65% * 45% * 10% = €11.5m)$ . This incentive cap value of 10% of notional equity is a similar value at risk (while not directly comparable) to other incentive schemes, such as in PR5 (up to 9% of revenue for the TAO and 5% of revenue for TSO at risk) and EWIC (up to 10% equity at risk). However, the value of the incentive could be diluted if it is fixed at an absolute value of €11.5m and the project capex increases. The sliding cap approach overcomes this risk by adjusting the incentive cap for changes in the efficient cost of the project. This approach provides EirGrid with certainty around how the cap will be set while protecting against the dilution of the incentive, with the final cap set when the efficient cost is confirmed. If the total efficient cost is €930m the incentive cap is set at €11.5m, this cap will increase by €22,500 for every additional €1m increase in the efficient capex cost, relative to the €930m set in the CBCA.

For example, if the efficient cost was deemed to be €980m, the related incentive cap would be set at €12.9m. If all other assumptions remain the same, this ensures the notional equity at risk remains 10% while also providing certainty around how the cap will be set. Once the incentive cap is set against the efficient delivery cost, this is the maximum delivery downside that EirGrid is exposed to through the delivery incentive mechanism.

Figure 6 below sets out how the delivery incentive model will work. In this illustrative example the sliding cap is set at €11.5m corresponding with the efficient cost being determined to be €930m. As the investment cost of the project overrun increases relative to the efficient delivery investment cost for the interconnector, this results in increasing deductions to the allowed RAB upon which EirGrid will be permitted to earn a return on during the operational period. If the investment cost of the project is delivered in line with the efficient investment cost then EirGrid will receive the full notional equity reward uplift to the RAB of €11.5m.

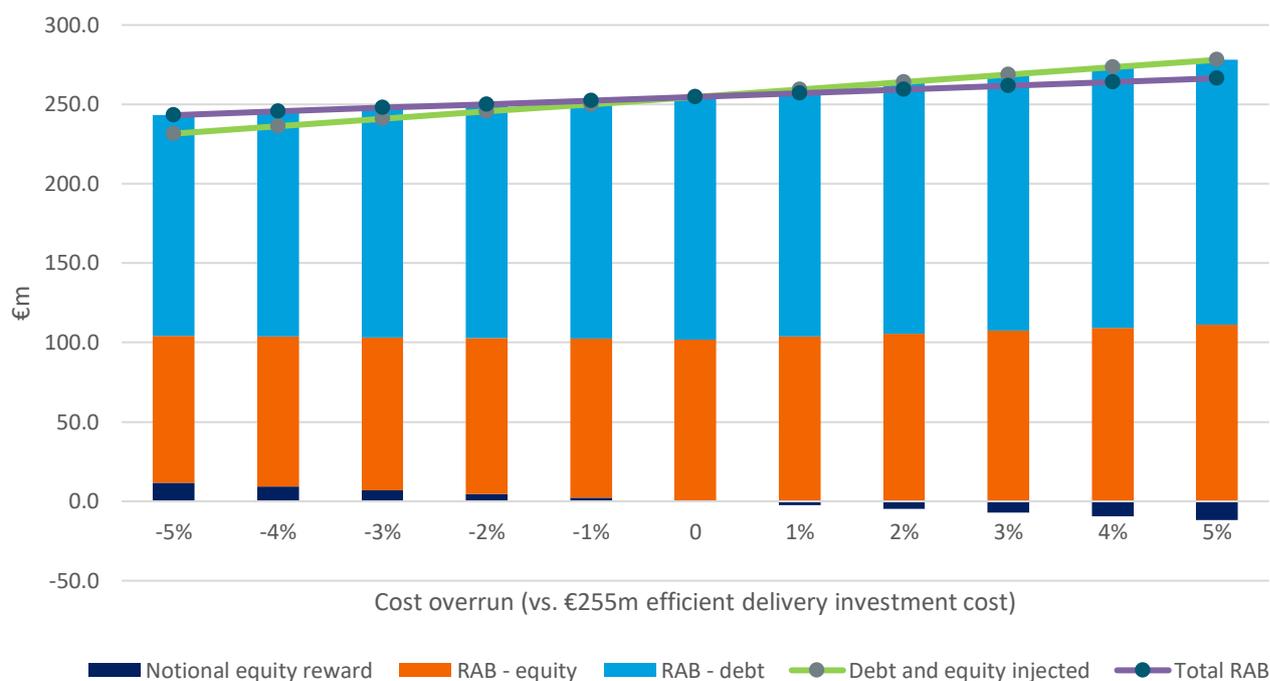


Figure 6: Delivery incentive example with no deadband

### 3.4.4 Operational incentives

Separate to the delivery incentive described above the CRU has determined that operational incentives will apply, for example on the availability of the Interconnector, the details of which are to be determined in due course. An availability incentive should seek to maximise interconnector availability and encourage EirGrid to ensure the Celtic Interconnector delivers the benefits to Irish consumers identified in the CBCA decision. This operational incentive mechanism is expected to be similar in scale to the operational incentive outlined in the decision paper on the Cap and Floor regulatory framework for the Greenlink electricity interconnector (CRU/21/114), where a minimum target availability of 80% is set in order to be eligible to receive customer payments.

### 3.4.5 Operational expenditure

The CRU has decided to set efficient operational expenditure for the Celtic interconnector on a periodic basis as part of the price review process but separate from the other TSO activities. The details on the above will be specified separately once EirGrid has more detail on expected operating costs for the project.

Setting operational costs on a periodic basis will allow these to be adjusted to take into account specific cost drivers, or changes in costs, at the time in the future. Setting the operational costs separate to other TSO activities will also ensure there is transparency on the cost of the Celtic Interconnector.

### 3.4.6 Arrangements should the Project not proceed to completion

The CRU is of the view that the risks associated with this project are greatest during development and construction. If certain risks materialise, then there is a possibility that the project may not proceed to completion. EirGrid has previously requested in these circumstances, that the expenditure incurred up to that point would be returned to EirGrid through customer tariffs over a reasonable period of time. The CRU has determined it will allow this approach but only where specific requirements have been met, such as the project not proceeding due to factors outside of EirGrid's control. The CRU will determine these circumstances in due course. If these conditions are not met, the CRU has determined that EirGrid will be required to absorb all or some of the losses in other areas of its business.

## 3.5. Summary of decisions

Table 7 below provides a summary of above decisions.

Topic area	Decision	Change from consultation proposal
<b>Pre-operational phase (development and construction)</b>		
Opening RAB	Opening RAB to be set based on Celtic Interconnector's pre-Final Investment Decision costs subject to prudency review.	No change
RAB additions	Costs incurred logged up in the RAB as additions, as incurred, during the construction period.	No change
Rate of return	EirGrid permitted to recover efficient debt service and liquidity costs as required during construction. EirGrid receives no return on equity until the project is operational.	No change

<b>Operational phase</b>		
Opening RAB	Opening RAB for operational phase set following a post-construction review, with adjustment for delivery incentive.	No change
Delivery incentive	Delivery incentive capped at 10% of notional equity invested in Celtic Interconnector by EirGrid, with specific parameters determined following the conclusion of the CRU's cost assessment in 2022.	Sliding cap linked to efficient cost
Rate of return	EirGrid permitted to recover efficient cost of debt and return on equity from commissioning. Allowed rate of return set at 5-year price reviews, with the WACC set as a nominal WACC (implying no RAB indexation) and no minimum inflation threshold. This nominal WACC is to facilitate the financeability of the interconnector project.	Decision that there is no minimum inflation
Depreciation	RAB depreciated on a straight-line basis over 25 years from the date of commissioning.	No change
Operational costs	Costs are subject to periodic reset consistent with the wider framework for the determination of efficient costs	No change
Operational incentive	Operational incentive set consistent with CRU interconnector policy	No change

*Table 7: Summary of CRU decision*

## 4. Summary of responses

### 4.1. Introduction

The consultation paper (CRU/21/057) asked respondents the following two questions, with the consultation closing on 23<sup>rd</sup> July 2021.

#### **Questions for Consultation**

- Comments are invited from interested parties on whether they agree with the CRU's proposed approach that the Celtic Interconnector be a fully regulated interconnector. Should a party disagree with this approach, please provide reasons and rationale for this. Comments are also invited from interested parties on the CRU's assessment of EirGrid's request.

#### **Questions for Consultation:**

- Comments are invited on whether stakeholders agree that, in the context of a fully regulated model, the Two-Phase Funding Model is the appropriate model to be applied to the Celtic Interconnector.

Three responses were received, these were from:

- EirGrid
- EDF Renewables
- Bord Gáis Energy

## 4.2. Responses to consultation questions

- **Q. Comments are invited from interested parties on whether they agree with the CRU's proposed approach that the Celtic Interconnector be a fully regulated interconnector. Should a party disagree with this approach, please provide reasons and rationale for this. Comments are also invited from interested parties on the CRU's assessment of EirGrid's request.**

EirGrid stated they support the fully regulated model and have no objection in principle to the two-phased approach. This respondent stated that the level of detail provided made it difficult to fully, or accurately, assess the proposals. EirGrid welcomed the application of the WACC x RAB style model, the 25-year depreciation period for the Return of Capital and the nominalisation of the WACC approach. EirGrid raised some concerns about the level of specificity to enable EirGrid to move forward and raise the project funding. Requesting clarity on Period (and basis) of Return of Capital, on basis of Return on Capital, the Maximum Scale of Capital at Risk and on the Financeable Treatment (Debt Service Coverage Ratio). More detail on this response is outlined in section 4.

EDF Renewables stated they agreed that electricity customers should not be exposed to the financial burden of Celtic. EDF Renewables stated they would welcome a regulatory framework which fairly considers the other players in the market and takes a balanced approach to cost recovery.

Bord Gáis Energy (BGE) disagreed with the fully regulated model and instead preferred a partly regulated approach akin to the cap and floor approach. BGE considered the cap and floor approach as more appropriate describing it as the most equitable approach between all types of interconnector investors, best reflects uncertainties on benefits outweighing costs and mitigates any level playing field concerns between merchant alternative technologies and interconnector projects. BGE respondent acknowledged that it may not be possible under a cap and floor regime to eliminate potential conflicts of interest and suggested ring-fencing the Celtic IC within EirGrid group as a potential way to mitigate this issue.

- **Q. Comments are invited on whether stakeholders agree that, in the context of a fully regulated model, the Two-Phase Funding Model is the appropriate model to be applied to the Celtic Interconnector.**

EirGrid stated they have no objection in principle to the two-phased approach but stated that the level of detail provided made it difficult to fully, or accurately, assess the proposals. EirGrid stated that CRU's proposal that the RAB would be written down and returned over 25 years on straight-line basis from the date of commissioning is potentially a workable proposal subject to return of capital being on a Net Present Value (NPV) neutral basis, and that financial ratios are maintained. EirGrid welcomed the proposed performance incentive associated with the timely and efficient delivery of the Celtic Interconnector, with the amount of money at risk capped. However, EirGrid did not agree that the CRU would be unable to set the cap without knowing the specifics of the incentives themselves. More detail on this response is outlined in section 4.

EDF Renewables described how the fully regulated Two-Phase Funding Model approach, as proposed by CRU, does seem to strike an appropriate balance between enabling EirGrid to progress the project while ensuring that its interests are aligned with those of the electricity customer.

Bord Gáis Energy suggested an alternative regulatory framework proposing the cap and floor approach. This respondent did support the thinking around applying symmetrical incentives if EirGrid deliver the interconnector on or below cost and in line with the expected timeframe.

### **4.3. Other comments received**

#### *Grid reinforcements and total system costs*

Both EDF Renewables and Bord Gáis Energy raised concerns around the need for grid reinforcements to facilitate the effective functioning of the Celtic IC. Both respondents highlighted the increasing levels of curtailment and the impact of the Celtic IC connecting. Bord Gáis Energy highlighted the effect of an increased single infeed of 700MW, with

increased reserves which will have a considerable impact on consumer imperfection charges and TUoS costs.

CRU response: As part of the Celtic Interconnector investment request document (CRU/18/265a) in appendix A12 EirGrid provided a quantitative analysis of the impact of the Celtic Interconnector on the functioning of wholesale markets and competition in Ireland.

The investment request set out the CBA framework, with the Socio-Economic Welfare (SEW) study including an assessment of the reduced levels of wind curtailment that exports via Celtic will drive. This was expressed on MWh per year basis rather than as a monetised value. The study provided an assessment of the impact that Celtic would have on SEM dispatch based on fuel savings (better merit order) and reduced congestion, with the study showing a base case benefit of between €66m and €91m a year. Wider reinforcement costs will also be treated as per the current policy.

#### *Increased costs*

Bord Gáis Energy raised concerns around the projected increased costs outlined in the consultation paper, stating it was not clear from the consultation what the plan is for liaising with EirGrid as well as with the French TSO (RTE) and regulator (CRE) in relation to this. It was queried what effect this increased cost would have on how investment costs are shared with the Irish consumer. Also, Bord Gáis Energy requested CRU's view on whether any scope exists to re-open the funding request to obtain further EU funding.

CRU response: In relation to the concerns raised regarding increased projected costs the CRU notes that the costs outlined in the consultation paper (CRU/21/057) are updated estimates based on probabilistic analysis by the TSOs. These values reflected latest estimates; however the actual multi-stage EPC tendering process is currently underway. The actual costs will become clearer once this process is complete. The CRU is conducting a cost assessment of the project. This work is expected to be completed in Q2 following the completion of the competitive tender process. Should costs outturn higher than the provision allowed for in the CBCA both CRU and CRE will consider next steps<sup>18</sup>.

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<sup>18</sup> [Should estimated costs \(i.e. by 20%\) or should the total costs of the project be reviewed significantly upwards \(i.e. by 20%\), the CRU and the CRE agree to consult with the project parties and to review this decision in order to reconsider the opportunity to invest in the project and/or the cross-border cost allocation decision regarding cost overruns](#)

### *Reassess Cost Benefit Analysis*

Bord Gáis Energy requested that CRU reassesses the original Cost Benefit Analysis (CBA) taking account of the cost of wider network reinforcement costs and of changes relating to the Greenlink IC build, Brexit and Ireland's latest security of supply concerns.

CRU response: In September 2018, the transmission system operators (TSOs) in Ireland and France submitted an investment request for the development of the Celtic Interconnector to the relevant national regulatory authorities, this included the original Cost Benefit Analysis (CBA). This analysis suggested that under a Brexit sensitivity, it is more beneficial for both Ireland and France to become interconnected. In addition, it was recognised that commissioning new interconnectors in Ireland may be necessary for meeting the EU interconnection targets, specifically because Brexit would increase the isolation of the Irish market.

In December 2018 the CRU published its assessment of the Investment Request (CRU/18/265). Following the CBCA decision, the project promoters secured financial assistance under the Connecting Europe Facility (CEF) in May 2019. The NRAs affirmed the CBCA decision on 10 October 2019. The Celtic Interconnector project is proceeding on the basis as set out in the revised CBCA decision (CRU/19/125), as such there is currently no plan to reassess the original CBA.

### *Level playing field*

EDF Renewables requested that all technologies, from wind farms to interconnectors, are subject to the same market conditions and grid connection costs, stating that the Celtic Interconnector appears to be exempt from the standard rules, as a Project of Common Interest (PCI).

CRU response: The CRU notes that although the Celtic Interconnector project is a project of common interest (PCI) it will still be subject to grid connection costs and other costs like any other participant. The Interconnector will be subject to the same standard rules as other infrastructure.

This status of the project as a PCI means that it is considered key in completing the European energy market and helping the EU achieve its energy policy and climate objectives. Due to this status PCIs can benefit from streamlined planning processes, improved regulatory conditions and possible EU financial assistance from the Connecting Europe Facility (CEF). However, this PCI status of the project does not affect the Interconnectors exposure to most costs and market rules.

### *Market distortion*

EDF Renewables stated a large transmission asset bidding into the capacity market, such as Celtic, with limited exposure to underlying wholesale markets or specific penalties that incentivise performance, has the potential to create market distortions, suggesting these could undermine the achievement of the all-island Reliability Standard.

CRU response: The CRU notes that the current treatment of interconnectors in the capacity mechanism is interconnector led with the interconnector bidding directly into the auction. This approach was implemented as an interim approach in advance of an enduring hybrid approach being developed. The Celtic Interconnector connecting to different markets could be particularly beneficial for Ireland, as it will connect Ireland to the European Union energy market as well as potentially reducing electricity prices and improving security of supply. The Celtic Interconnector participating in any future capacity auctions would reflect some of these benefits.

### *System Operator led approach*

EDF Renewables suggested a more system operator led approach going forward, to provide a framework for future interconnector planning, than a series of individual developer propositions. Greater coordination between the regulator/system operator and other authorities was proposed and it was described how this work could include the development of a planned strategy that developers could then bid into.

CRU response: The CRU notes the suggested approach of a more centralised system operator led approach going forward, to provide a framework for future interconnector planning, rather than a series of individual developer propositions. Although it is a TSO obligation to explore and develop opportunities for interconnection, this suggested

centralised approach is not in line with the current policy (“case by case basis”<sup>19</sup>) Action 110 of the 2021 Climate Action Plan requires DECC to update the 2018 National Policy on Electricity Interconnection<sup>20</sup>. The CRU will consider any national policy changes before updating regulatory policy on connecting electricity interconnector<sup>21</sup>.

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<sup>19</sup> <https://www.cru.ie/wp-content/uploads/2018/09/CRU18221-Policy-for-Electricity-Interconnectors-Assessment-Criteria-for-Electricity-Interconnection-Applications-Decision-Paper.pdf>

<sup>20</sup> [www.gov.ie](http://www.gov.ie) - National Policy Statement on Electricity Interconnection ([www.gov.ie](http://www.gov.ie))

<sup>21</sup> [www.gov.ie](http://www.gov.ie) - Climate Action Plan 2021 ([www.gov.ie](http://www.gov.ie)) – Annex of Actions page 75

## 4. Next Steps

This paper sets out CRU's final decision on the regulatory cost recovery model for the Celtic Electricity Interconnector. Following this decision, the CRU will continue to engage with EirGrid on the detailed aspects of the regulatory cost recovery model and will determine these aspects as well as other elements necessary to allow the project to progress to FID in due course. In advance of FID CRU also expects to complete a detailed cost assessment for the delivery of the project. The outcome of this assessment will set the efficient cost limits for the project.

Should FID proceed the CRU will develop a set of operational incentives and will consider the licencing and governance framework for the Celtic interconnector. The CRU will also carry out a post construction review once construction of the project is complete post commissioning. This will set the final cost allowances for EirGrid.

Figure 7 below sets out the next steps that will be completed by the CRU in advance of the Final Investment Decision (FID) in September 2022.

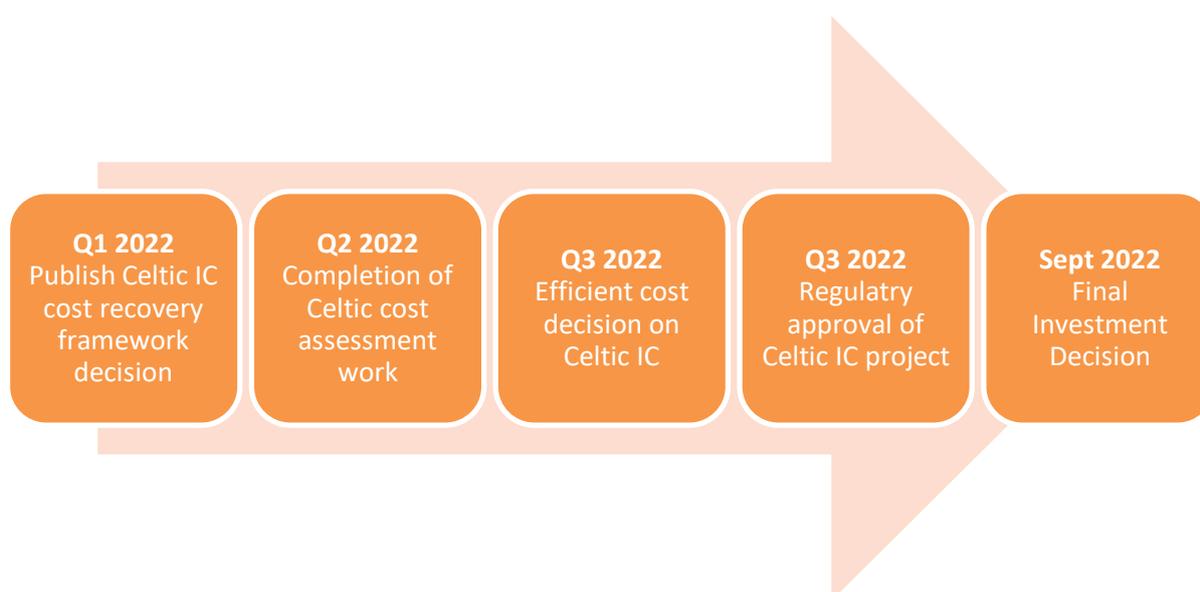
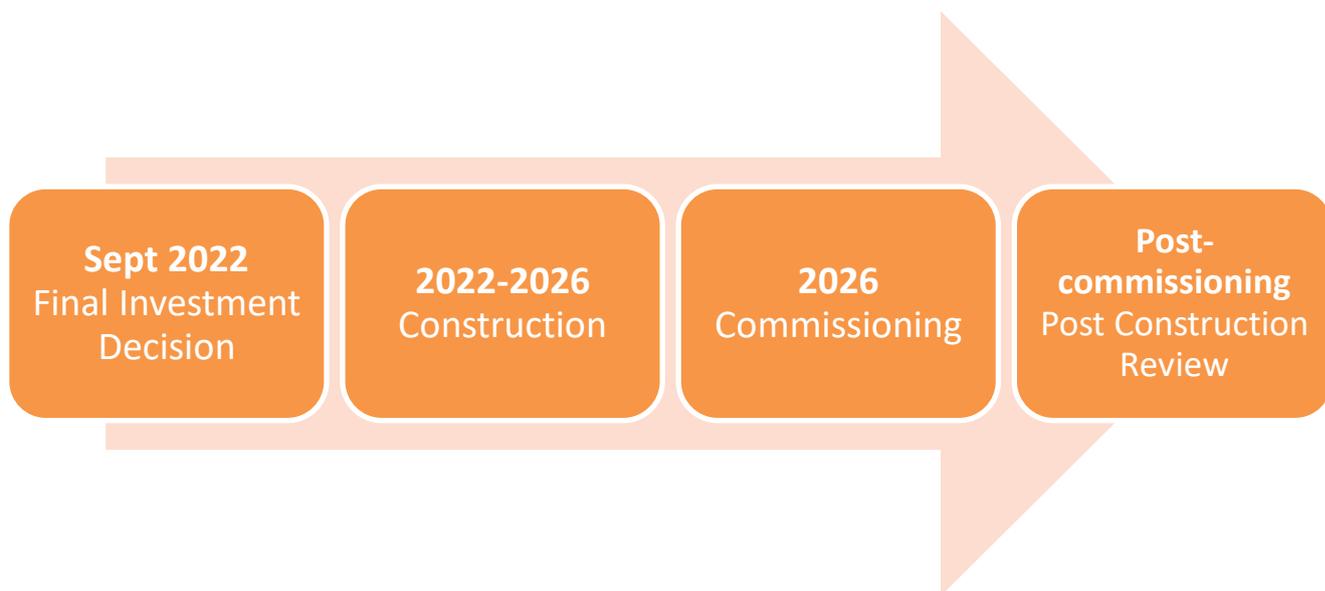


Figure 7: Next steps for CRU in advance Final Investment Decision (FID)

The timeline below in figure 8 sets out an indicative timeline for the upcoming key stages of the overall Celtic interconnector project:



*Figure 8 - Indicative Timeline of Next Steps for overall Celtic IC project*