

# Celtic Interconnector

Ireland Regulatory Framework Submission

Post PR5 Decision Update

05 February 2021



**Version History**

Update Post PR5 Decision	There are no notable changes to the framework proposal as set out in the April 2020 version. Minor updates have been incorporated in this version to reflect the PR5 cost of capital (WACC) and, where relevant, latest information given the passage of time. Information provided to the CRU in the period since the April Submission has been appended and/or referred to for completeness.	5 February 2021
Celtic Interconnector Ireland Regulatory Framework Submission	Formal Submission to the CRU Seeking a Decision on the Regulatory Framework supporting the development of the I/C as this is not provided for in the TSO Price Control.	4 April 2020

## **Executive Summary**

Interconnectors are vital in enabling Europe's energy market to operate as efficiently and sustainably as possible and in the best interests of EU consumers. These cross-border electricity cables are seen as the lowest-cost route to decarbonising EU energy supply, as they reduce the need for local generation by allowing energy to be transmitted from where it can be most economically generated to where it is most needed and thus support the development of renewable generation across the continent.

As the licensed TSO for Ireland, EirGrid has an obligation to operate and ensure the maintenance of, and if necessary, develop a safe, secure, reliable, economical, and efficient electricity transmission system. Under Regulation 8 of SI 445 (2000) and Condition 9 of its License, EirGrid also has an obligation to “explore and develop opportunities for further interconnection”. It is in fulfilment of these obligations that EirGrid, working with RTE, the French TSO, has been developing the Celtic Interconnector project.

In 2019 the National Regulatory Authorities, CRU in Ireland and CRE in France, published their coordinated Cross-Border Cost Allocation (CBCA) Decision<sup>1</sup> supporting the Celtic Interconnector project. The CBCA decision set out the basis of the cost sharing between the parties and provided that the cost of the Celtic Interconnector would form part of the respective national tariffs.

Having completed the early development phases, the project has now entered the Detailed Design and Consents phase (Phase 3). This phase will culminate in consideration of a Final Investment Decision in late 2022, for which we will need to establish, and have in place, the required financial arrangements for the funding of the project. These requirements are contingent on the underlying regulatory framework.

The regulatory framework in France for the development of interconnectors by RTE is well established and the arrangements for the French element of the Celtic Interconnector have been confirmed. As such, this submission paper pertains only to the Irish-funded elements of the Celtic Interconnector project. It is important there is as much commonality as possible between the regulatory arrangements in both jurisdictions.

In setting out its proposals for the Celtic Interconnector, EirGrid has considered a number of models. Ultimately EirGrid proposes the use of a WACC\*RAB model as the regulatory framework for the Celtic Interconnector. This position has been reached after consideration of a number of criteria, including maximising consistency of regulatory framework between onshore and offshore assets between arrangements in Ireland and in France, ensuring that EirGrid does not face incentives which could rise to potential conflicts of interest and maximising value and benefits to customers through a low cost stable regulator regime.

EirGrid has summarised the key elements of the proposed framework that the CRU decision will need to address in Figure 1.

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<sup>1</sup> CRU/19/125

### Proposed Framework Elements

#### Pre Final Investment Decision (FID) Recovery Arrangements

Confirmation that the CRU framework in place for the recovery of costs in Phases 1 and 2 continues to apply to Phase 3, that being:

1. The carrying cost only of the expenditure (initially charged at the WACC approved under the PR3 mid-term WACC review, and thereafter at the PR4 and subsequent WACC rates) being added to the approved TUoS charges until a final determination of the project is completed (FID); and
2. The principal, is placed in the Side RAB, being recovered by EirGrid (inflation adjusted) should the project proceed, or be returned to EirGrid through the Transmission Use of System (TUoS) Tariffs over a reasonable time period (e.g. 3-5 years) in the event the project ultimately does not progress to completion.

#### Post FID Recovery Arrangements on the basis the project proceeds

1. Timing of return of the capital
  - from FID that all capital expended (including pre FID capital) shall be added to the opening value of the RAB and the RAB will be written down and returned to EirGrid over 25 years on a straight line basis from the year of incurrence of expenditure (i.e. 4% per annum);
2. Basis of return on Capital
  - the applicable WACC will be that determined by Commission under the extant price control process (PR5, PR6, PR7 etc.) indexed by the Harmonised Index of Consumer Prices pertaining (a nominal WACC) [i.e.  $(1+WACC)*(1+HICP)-1$ ];
3. Level of expenditure at Risk
  - that the scale of monies at risk concerning the delivery shall be no greater than the equivalent of 10% of the equity under the notional capital structure in the project @€930m €11.5m, applied through TUoS separate to the treatment of the Celtic RAB;
4. Financeability Framework
  - the WACC shall be such that the Debt Service Cover Ratio (DSCR) under the notional WACC RAB model with 55% gearing shall be at least 1.8 in each period;

Figure 1: Proposed Framework Elements

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## 1 Context

Interconnectors are vital in enabling Europe's energy market to operate as efficiently and sustainably as possible and in the best interests of EU consumers. Cross-border electricity cables are seen as the lowest-cost route to decarbonising EU energy supply, as they reduce the need for local generation, by allowing energy to be transmitted from where it can be most economically produced to where it is most needed and support the development of, and increase the consumption of, electricity from renewable sources. With the GB system now explicitly separated from that of the EU (as per the Trade and Cooperation Agreement, developed in light of Brexit), the Celtic interconnector represents an opportunity for the SEM to establish a direct link to the pan-European electricity network.

Ireland, as all European Member States, has a target interconnection level of 10% of installed electricity production capacity by 2020 and 15% by 2030. In 2019 the Commission's Expert Group on interconnection considered the potential of interconnections with third countries in promoting EU's external policy objectives. The Group concluded the assessment of EU electricity Interconnection levels should be calculated only by taking into account the interconnection between the EU member states as well as Switzerland and Norway<sup>2</sup>. As a result on foot of the UK's exist from the European Union Ireland's interconnection level is currently 0%. The Celtic interconnector as a direct link between member states will contribute towards meeting Ireland's interconnection targets.

EirGrid as the licensed Transmission System Operator (TSO) for Ireland has obligations to operate and ensure the maintenance of, and if necessary, develop a safe, secure, reliable, economical, and efficient electricity transmission system and under Condition 9 of its Licence and Regulation 8 of SI 445 (2000) has the obligation to "explore and develop opportunities for further interconnection". It is in fulfilment of these obligations that EirGrid, working with RTE, the French TSO, (collectively the TSOs) has been developing the Celtic Interconnector project.

Working together since 2011, EirGrid and RTE have jointly completed the development phases of the Celtic Interconnector project, a designed European Project of Common Interest (PCI). The project has now entered the Detailed Design and Consents phase (phase 3).

Phase Description	Preliminary Feasibility	Feasibility	Initial Design & Pre-Consultation	Detailed Design & Consents	Construction
Timetable	2011 - 2014	2014 - 2016	2016 - 2019	2020 – 2022	2022 – 2026
EirGrid / RTE Project Work Streams	Benefits Technology Costs	Marine survey Project Parameters Economic & Financial Analysis	Initial Design Pre-Consultation Investment Request Grant Application	Detailed Design EPC Procurement Consenting	Contract Award Manufacturing Energisation
Status	Complete	Complete	Complete	Commenced	

FID

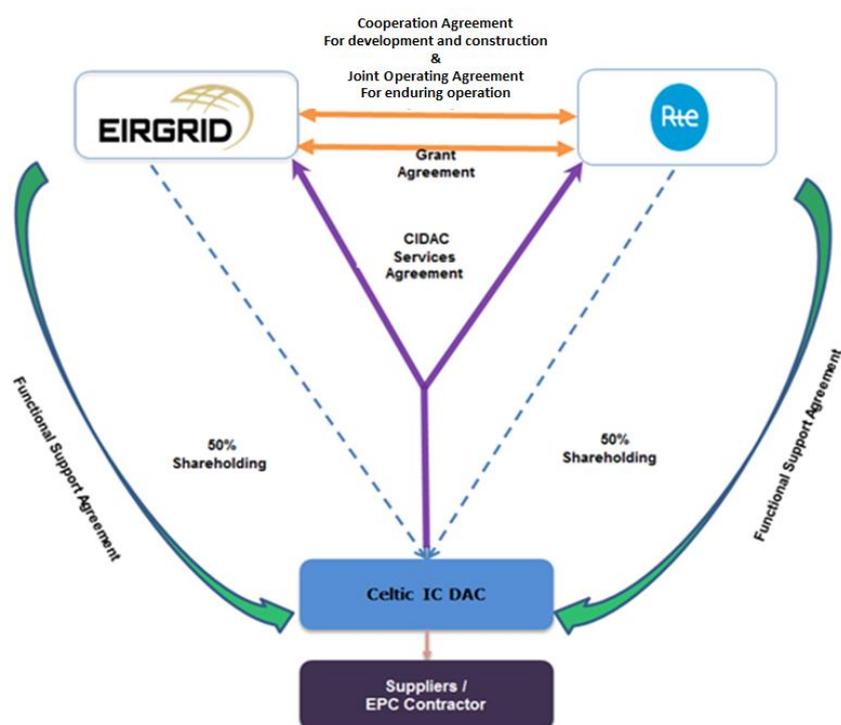
<sup>2</sup> <https://op.europa.eu/en/publication-detail/-/publication/785f224b-93cd-11e9-9369-01aa75ed71a1/language-en/format-PDF/source-105951858>

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The Detailed Design and Consents phase will culminate in consideration of a Final Investment Decision (FID) in late 2022. A key requirement of this phase is to establish and have in place the required financial arrangements for the funding of the project. These requirements are contingent on the underlying regulatory framework which is set out in this submission document.

### Contractual Framework for Project Delivery

EirGrid and RTÉ have established Celtic Interconnector DAC, an Incorporated Joint Venture (IJV), as the delivery vehicle for the project. The purpose of the IJV is to procure, administer, manage and contribute to the design, development and construction of the interconnector between France and Ireland. EirGrid and RTÉ are 50/50 shareholders in Celtic Interconnector DAC. Following commissioning of the interconnector, the IJV will ultimately be dissolved and the enduring ownership and operational responsibilities of the assets will rest with EirGrid and RTÉ.



### Grant Agreement (CEF)

In 2019 the National Regulatory Authorities (the **NRAs**), CRU in Ireland and CRE in France, published their coordinated cross-border cost allocation (**CBCA**) Decision<sup>3</sup> supporting the Celtic Interconnector project. The CBCA Decision set out the basis of the cost sharing between the parties and provided that the cost of the Celtic Interconnector would form part of the respective national tariffs.

Following the NRAs' decision EirGrid and RTÉ submitted an application for significant grant funding for the project under the Connecting Europe Facility (**CEF**). The project was successful in its application achieving a substantial grant award of €530.7m in addition to approximately €7m of grants secured in previous phases. In December 2019 the TSOs entered in to the formal grant agreement with the EU Innovation and Networks Executive Agency (**INEA**).

<sup>3</sup> CRU/19/125

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The grant agreement sets out general obligations on the TSOs including the prompt performance of their respective obligations pursuant to the grant agreement (including *vis a vis* the Coordinator).

The TSOs have mandated EirGrid to be the Coordinator under the grant agreement. The Coordinator acts as the intermediary between the beneficiaries and the Funding Authority (INEA) and receives the Grant money (in a separate bank account) on behalf of the beneficiaries and distributes the relevant share to each beneficiary. The Coordinator is also responsible under the grant agreement for the timely preparation of the requests for payments and for delivering to the Funding Authority the cost justifications provided by the beneficiaries and the affiliated entity (being the IJV) in accordance with the timescales as set out.

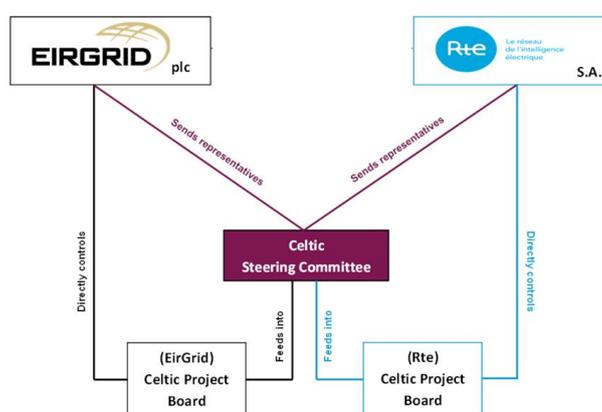
### Ownership and responsibilities of the Project Assets

RTÉ will own and operate all interconnector assets located in France (including the French EEZ) and EirGrid will own and operate all interconnector assets located in Ireland (including the Irish EEZ)<sup>4</sup>. The TSOs will assess the ownership arrangements of the Interconnector assets located in the UK EEZ and these will ultimately be held by EirGrid or RTÉ, or allocated between the parties. For the avoidance of doubt, ownership of the interconnector assets will not vest in the IJV. This is consistent with the conditions of the Grant Agreement that prescribe that the associated assets are held by the beneficiaries, EirGrid and RTÉ.

For completeness it is noted that the ownership of the assets does not ascribe the cost allocation. The project costs and the project's operational and maintenance costs will be allocated in accordance with the CBCA decision.

### Governance

The Celtic Interconnector project is governed by the Celtic Interconnector Steering Committee, a decision making forum, consisting of representatives from EirGrid and RTÉ (three members appointed by each of EirGrid and RTÉ). The project is internally represented in EirGrid by the Celtic Interconnector Project Board (as a discussion platform in terms of project management).



The ongoing roles and responsibility for the preservation, maintenance, repair and operation of the Interconnector Assets will be dealt with in a Joint Operating Agreement to be agreed and entered into by EirGrid and RTÉ, as TSOs for Ireland and France respectively at a future date. This agreement will state the common vision and purpose upon which the two parties will undertake these core

<sup>4</sup> The Electricity Regulation (Amendment) (EirGrid) Act 2008 Section 2(3) states "[ ] EirGrid may own an interconnector".

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activities and will therefore need to reflect the market environments and regulatory principles under which the two TSOs must operate.



Section 2A of the Electricity Act 1999, as amended, provides that an interconnector owned by the transmission system operator shall be regarded as part of the transmission system for the purposes of the function of the transmission system.

## **1.1 Purpose and Scope of Submission**

The project has now entered the Detailed Design and Consents phase; this phase will culminate in consideration of a FID in late 2022. A key requirement of this phase is to establish and have in place the required the financial arrangements for the funding of the project. These requirements are contingent on the underlying regulatory framework as set out in this submission.

While the cost allocation framework, and confirmation that the cost of the Celtic Interconnector will form part of the respective national tariffs in Ireland and France, was set out in the CBCA, the key elements of the regulatory framework now need to be confirmed, in order that the necessary project financing can be put in place. This is required to ensure there is clarity (for both EirGrid and prospective lenders) as to how EirGrid will be remunerated. [REDACTED]

[REDACTED] This will be achieved by providing surety that the regulatory recover of the principal is achieved.

EirGrid is not seeking confirmation or approval of the enduring operational costs or future CapEx spend (e.g. for decommissioning) from the CRU. Such revenues would be the subject of separate engagement and consultation with the CRU as part of the extant framework for periodic setting of the TSO's revenue requirements and the ongoing operation of the Celtic Interconnector as an asset within that framework. Noting that the forecast commercial operational date of the Celtic Interconnector is 2026, this process is currently envisaged to be considered as part of the PR6 process.

## 2 Considerations in setting a regulatory model

In its consideration of the various approaches to regulate interconnectors and to determine who bears the risk of the interconnector being able to earn congestion revenues, the CRU noted that:

*“[] the right regulatory approach would depend on the circumstances of each interconnector being considered. The right approach may vary depending on legal requirements (e.g. as per the EU Third Package), the markets being connected, the policy environment at the time of investment, and the availability of efficient financing at the time of investment.”<sup>5</sup>*

The CRU also noted that in determining the appropriate regulatory regime to apply to different interconnectors the following considerations were identified<sup>6</sup>:

- Providing consistent incentives for the developers across both jurisdictions that the interconnector links to;
- Appropriate allocation of risk between consumers, developers and other affected parties (e.g. domestic generators); and
- Facilitating different financing solutions, including from non-TSO developers, as a way of attracting efficient and innovative proposals.

The CRU further noted that applying a different regulatory approach on one side of a interconnector to that in place, or proposed to be in place, at the other side could result in perverse incentives on the operation of the link.

The co-operation frameworks, within which the European transmission system operators operate interconnectors with their neighbours, differ in terms of technical, political and market rules from those in third countries (i.e. outside of the EU). As noted by the EU Expert Group on Interconnection, interconnectors with third countries play different roles for the EU as a whole and the EU member’s national electricity systems by enabling electricity trade and thus ensuring security of supply and stability of grids.

In considering the appropriate model for the Celtic Interconnector it is important to recognise that the Celtic Interconnector will be the only interconnector linking Ireland directly to an EU Member State and, as a result, it is important that the arrangements be set against, and consistent with, the wider EU framework, including the EU Network Code framework. This is essential to ensure that the interconnector is positioned to align with, and maximise the further integration of, the European Market.

As the Celtic Interconnector is being advanced by the TSOs, where possible the extant regulatory arrangements and principles in place in Ireland for the development of transmission assets, appropriately calibrated to the nature of the development, should form the foundation for the model employed. This reflects the approach adopted by CRE for RTE’s development of interconnectors.

In considering and setting out the proposed model for the regulatory framework for the Celtic Interconnector, EirGrid has sought to do so with a view to, *inter alia*:

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<sup>5</sup> CRU Consultation Paper on Greenlink CRU/18/119 - 18 June 2018

<sup>6</sup> Section 5.2 - CRU Consultation Paper on Greenlink CRU/18/119 - 18 June 2018

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- Where possible, leveraging extant arrangements, policies, CRU decisions and revenue setting to minimise regulatory burden or the need for bespoke arrangements to be developed;
- Building on the established regulatory framework in Ireland for the development and funding of strategic projects by the TSO. The framework approved by the CRU for the development phases of Celtic Interconnector project to date already reflects this approach;
- Consistency with the treatment applied by the CRU to EirGrid's other regulated assets based;
- Aligning with and leveraging the established arrangements for the development of the onshore network; which provides regulatory support via a WACC x RAB model based on the notional efficient structures;
- Employing the CRU's assessment of WACC carried out as part of the TSO price control process;
- Enabling the CRU to fulfil its duty with respect to ensuring the financeability of the TSO within the framework as set out in Section 35 of the Electricity Regulation Act, 1999;
- Not introducing any perverse or competing incentives between EirGrid and RTE in the delivery and operation of the interconnector by ensuring that the model is broadly consistent with the approach to be applied to the French element of the Interconnector, cognisant of the CRU's requirements under Section 9 of the Electricity Regulation Act, 1999 to
  - contribute to the development of the internal market and to the development of compatible regulatory frameworks between regions of the European Union, by engaging, co-operating and consulting with other national regulatory authorities, the Agency and with the European Commission in regard to cross-border issues;
  - cooperate with other regulatory authorities at a regional level to foster operational arrangements to enable an adequate level of interconnection capacity within the region and between regions to allow the development of effective competition and improvement of security of supply; and
  - co-operate with other regulatory authorities at a regional level to develop rules on access to cross border infrastructure including allocation of capacity and congestion management
- Not introducing any mechanism which could give rise to perception of potential for conflicts of interest to be placed on EirGrid with respect to its wider functions; and
- Minimising impacts on consumers by:
  - Enabling the TSO to secure funding at competitive rates through understood and well established regulatory frameworks;
  - Ensuring that revenues earned in excess of the CRU determined efficient cost of development and operation are to the benefit of the TUoS customer; and
  - Seeking to ensure appropriate allocation of risk to those who can bear it.

## 2.1 Regulatory Models

In setting out its proposals for the Celtic Interconnector EirGrid considered a number of models

### 2.1.1 Fixed Cost Recovery model

A Fixed Cost Recovery model consistent with that applied to East West Interconnector (EWIC) between Ireland and Britain.

EWIC was developed by the CRU on foot of a decision of the Irish Government under Section 16A of Electricity Act 1999 (as amended) with the construction undertaken by EirGrid further to a request from the CRU.

As a result in accordance with Section 2A of Electricity Act 1999 (as amended) the interconnector was automatically considered to be part of the transmission system for the purposes of calculating charges and imposing charges for use of the transmission system and no “public interest test”, as effectively carried out by the CRU as part of the CBCA for Celtic, was necessary or conducted. The financial structuring and regulatory model for EWIC is reflective of the arrangements that pertained at that time and its genesis as an interconnector developed by the regulator with the full underwriting of all risks through the regulatory framework.

EirGrid is not proposing a similar model be advanced for the Celtic Interconnector as the development of the Celtic Interconnector is not being advanced on the same basis as EWIC (i.e. on foot of a decision of the Irish Government).

### 2.1.2 Cap and Floor Model

EirGrid notes that the CRU has elsewhere approved the application of the Cap Floor framework. Such a framework however, does not however appear to be compatible with EirGrid's development of Celtic as a regulated TSO. In particular, the Cap and Floor model:

- Incentivises the owner/operator to maximise interconnector revenue in order to generate higher returns. Given the actions which may need to be taken, or which EirGrid could potentially take in this regard, this could lead to potential conflict of interest for any TSO required to operate in a transparent, non-discriminatory manner;
- Enables the owner/operator to make and retain additional profits up to the Cap; and
- Is inconsistent with the model to be applied on the French side of the Interconnector (a WACC x RAB model) – which has the potential to lead to incompatible operating environments and perverse outcomes<sup>7</sup>.

In addition EirGrid notes that the application of a Cap and Floor model would not be capable of being financed by EirGrid, a regulated TSO and if it were to be financed could give rise to adverse impacts, and increase the costs, on the financing of its other TSO activities.

### 2.1.3 WACC x RAB Model (Proposed Model)

The proposed regulatory framework for the Irish element of the Celtic Interconnector is a WACC x RAB model. The Investment Request submitted by EirGrid in conjunction with RTÉ to the CRU and CRE, which underpins the NRAs' CBCA decision and the Grant application and award from

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<sup>7</sup>

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the Connecting Europe Facility, employed the WACC x RAB model for the Irish element of the interconnector.

This model is flexible and offers a viable option towards financing the project for EirGrid provided that the asset life is broadly aligned with the tenor of the debt and that the WACC appropriately calibrated to the nature of the development. Such an approach:

- Builds on the established regulatory framework in Ireland for the development and funding of strategic projects by the TSO;
- Is consistent with the treatment applied by the CRU to EirGrid's other regulated assets based;
- Aligns with and leverages the established arrangements for the development of the onshore network;
- Employs the CRU's assessment of WACC for an efficient entity already carried out as part of the TSO price control process;
- Avoids the CRU needing to be directly involved in or taking responsibility for the actual capital structure of the project;
- Removes any perverse or competing incentives between EirGrid and RTÉ in the delivery and operation of the interconnector by ensuring that the model is broadly consistent with the approach to be applied to the French element of the Interconnector;
- Removes any perception of or potential for potential conflicts of interest with respect to the exercise by EirGrid of its wider regulated functions;
- Minimises impacts on consumers by enabling the TSO to secure funding at competitive rates and ensuring that revenues earned in excess of the CRU determined efficient cost of development and operation are to the benefit of the TUoS customer;
- Provides that the person that holds the risks is the person best placed to manage such risks; and
- Enables the CRU to assess and review the efficient costs of operation as part of the existing TSO periodic revenue review process.

## 3 Revenue Framework for the Celtic Interconnector

### 3.1 Capital Costs associated the physical development

The estimated cost of the project development at the time of the CBCA was €930m (in 2018 monies). In line with the CBCA decision<sup>8</sup> 65% of the investment costs will be allocated to Ireland, and 35% to France, with any variation to the original capital estimate allocated on a 50-50 basis. Any financial support (grants) awarded by the European Commission will be shared between EirGrid and RTÉ to match the cost-allocation agreement (i.e. 65% for EirGrid, 35% for RTÉ).

Consistent with the arrangements for the development of the onshore network in Ireland, and with the regulatory framework for the development of the interconnector by RTÉ, 100% of the outturn costs of the project borne by Ireland, net of any Grants where applicable will be added to relevant Regulated Asset Base (RAB). Incentive arrangements that may be placed on the parties in regard to physical costs are separately applied (Ref. Section 3.4 Incentives) and are not a component of the above arrangements.

While the assumed asset life for the purpose of setting the regulatory framework is 25 years from the date of commissioning, the outturn operational life is not tied to this period. CapEx required to either extend the life of the asset or decommission the asset will be taken based on the best available information at that time. Where such a decision drives CapEx costs on the TSOs, the TSOs would engage with both CRU and CRE as required to assess the efficient costs to be incurred, the final treatment of same and the appropriate allocation of the costs between the parties. This is consistent with the onshore arrangements in both France and Ireland.

In addition, any changes in legislation or regulatory arrangements governing the operation of the interconnector that drive additional CapEx or OpEx costs to be borne by the EirGrid and RTÉ would be managed through the extant frameworks for the periodic resetting of the TSOs allowed revenues in Ireland and France respectively, with engagement between the TSOs and the National Regulatory Authorities (NRAs), as required.

#### Reporting

Under the terms of the CBCA, it is noted that *“The TSOs shall submit periodic cost estimate reviews to their respective NRAs (not less than every 6 months or as requested by the NRAs) and in addition, report to both NRAs on any material changes in cost estimate without delay. Excluding project development activities, the TSOs shall not commit any significant expenses until procurement of the infrastructure is complete and the overall cost of the main supply contracts (including cables) is known.”*

In addition, it is noted that EirGrid and RTÉ will be submitting cost spend reports to INEA as part of the administration of the grant.

### 3.2 OpEx

Operational costs will primarily be incurred from the commercial operational date of the interconnector, with limited, if any, OpEx costs in the development phases. As set out in the CBCA decision, the OpEx cost associated with managing, operating and maintaining the Celtic Interconnector will be shared on a 50-50 basis between EirGrid and RTÉ.

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<sup>8</sup> CRU/19/125

While initial estimates can be made on these proposed costs based on current assumptions and existing interconnector practises, it should be noted that the accuracy of the forecast will improve as the project progresses into the construction and operation phases. As such, it is proposed that these costs, where borne by EirGrid, 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. Such an approach is in keeping with the arrangements that will apply to the RTÉ share of OpEx costs which will be managed in keeping with the approach adopted for the wider RTÉ TSO revenue framework. Noting that the forecast commercial operational date of the Celtic Interconnector is 2026, this process for EirGrid is currently envisaged to form part of the PR6 process.

### 3.3 Treatment of Revenues

Interconnector revenue opportunities are inherently linked to the regulatory framework attributed to them. Existing SEM interconnectors (EWIC and Moyle) currently accrue revenues through participation in capacity markets at both ends of the link (GB and SEM), by charging for the provision of ancillary services (such as frequency response, black start or the facilitation of SO-SO trades) to onshore system operators and through the allocation of interconnector capacity to wholesale power traders (congestion rent).

However, the European Framework is evolving. The overarching principle is that interconnectors should serve to encourage generators to respond to international market signals and directly provide support themselves to neighbouring systems. Looking forward, therefore, the Clean Energy Package moves to disallow the participation of interconnectors directly in these markets, rather the interconnectors would be expected to facilitate the provision of ancillary services and generators' participation in capacity markets:

- Regulation EU 2019/943 Article 26 states that interconnectors' participation in capacity markets shall be limited to a *"maximum of four years from 4 July 2019 or two years after the date of approval of the methodologies referred to in paragraph 11, whichever is earlier"*.
- In terms of ancillary services, the Clean Energy Package builds on the principles set out in the Emergency & Restoration Network Code<sup>9</sup>, the System Operation Guideline<sup>10</sup> and the Electricity Balancing Guideline<sup>11</sup>, which set out clear roles and responsibilities for HVDC interconnectors in the support of onshore system operators and the cross-border exchange of balancing services. The move would appear to mirror that of the Capacity Market design principles, transitioning interconnectors to a role whereby they are expected to facilitate the provision of services that are backed by generators in the connected market, rather than developing services for the benefit of the interconnector party itself. While it is recognised that some services inherent to the interconnector technology itself may be retained and offered by the interconnector party if and how such services would be remunerated is unknown.

Thus the sale of capacity to power traders (congestion rent) will, by the time the Celtic Interconnector is developed, likely be the sole source of revenue for interconnectors.

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<sup>9</sup> [Regulation \(EU\) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration](#)

<sup>10</sup> [Regulation \(EU\) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation](#)

<sup>11</sup> [Regulation EU 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing](#)

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The European Commission has sought to harmonise the way in which capacity is sold on EU interconnectors with the development of the 'priority' European Network Codes. Specifically, the Forward Capacity Allocation Guideline (**FCA**) and the Capacity Allocation and Congestion Management Guideline (**CACM**) govern the arrangements for long term transmission rights and for day-ahead and intraday arrangements respectively<sup>12</sup>. The end goal now sees capacity allocated by means of explicit capacity auctions (offered as either a physical transmission right or a financial transmission right) or implicit auctions encompassing both capacity and energy.

For the Celtic Interconnector the revenues generated from capacity sales (congestion rent) will be shared on a 50-50 basis between EirGrid and RTÉ.

Both TSOs will be bound, under the Clean Energy Package (Article 19 Directive 2019/943<sup>13</sup>), to report to their respective regulatory authorities on how any congestion rent will be used. This will be based on a methodology endorsed by European NRAs<sup>14</sup> that prioritises guaranteeing the actual availability of interconnector capacity, whether through infrastructure investment or covering market related costs associated with the operation of the link.

### 3.4 Incentives

In order to enable EirGrid to put in place the required financial arrangements for the funding of the project the underlying regulatory framework needs to be clearly set out. A key component of the framework will be an understanding of the scale of risk exposure of which incentives are a feature. It is not necessary for the incentive metrics to be defined as part of this process, rather it is the scale of the upside/downside risk that needs to be determined.

The scale of potential incentives/downside risk needs to:

- Reflect the skewed probability distribution of outcomes;
- Take account of the degree to which additional costs and effort must be expended to deliver superior outcomes;
- Recognise the limited ability of a light asset base company to take downside risk; and
- Be of a scale proportionate to the benefits which can be realised.

In regard to the incentives themselves, EirGrid recognises that it is important to the CRU and to stakeholders that arrangements which incentivise good financial management/ discipline by EirGrid are in place. In this context it is important to ensure that the incentive framework seeks to promote:

- Good decision making;
- Appropriate management effort and prioritisation;
- Good financial management/ discipline;
- Effective cost management;
- Timely delivery; and
- Operation of the link in a way that delivers benefits to customers.

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<sup>12</sup> The FCA and CACM Guidelines no longer govern trading on the SEM-GB border; thus Celtic will be subject to a different regulatory regime than the East-West and Moyle interconnectors and the proposed Greenlink interconnector.

<sup>13</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0943&from=EN>

<sup>14</sup> <https://acer.europa.eu/Media/News/Pages/ACER-decides-on-Methodology-for-the-Use-of-Congestion-Income-when-allocating-electricity-cross-border-capacity.aspx>

EirGrid proposes that a cap and collar is set for the overall incentive framework:

- Capped on the upside at no greater than the equivalent of 10% of the equity under the notional structure in the project @€930m; fixed at +€11.5m; and
- Collared on the downside at no greater than the equivalent of 10% of the equity under the notional structure in the project @€930m; fixed at -€11.5m.<sup>15</sup>

In order to smooth any potential tariff impacts to customers and to enable EirGrid to finance any downside, should downside occur, EirGrid proposes that any penalty or payments are profiled in their recovery over a 10 year period. This approach is consistent with that in place of EWIC and with the approach to the management of incentives for RTÉ.

It is important to recognise that the Celtic Interconnector is being developed on a joint venture basis by EirGrid and RTÉ and as such it is essential that the chosen incentives for EirGrid are compatible with those that are currently in place under the RTÉ framework. This is required to avoid giving rise to the potential for perverse incentives or indeed the potential for Ireland to bear additional risk if they were to be misaligned.

As noted above, EirGrid does not believe that it is necessary for the incentive metrics to be defined as part of this process rather it is the scale of the upside/downside risk that needs to be determined at this juncture.

### **3.5 Treatment of Liabilities**

#### **Construction Phase**

EirGrid and RTÉ will be required to undergo a full risk assessment process to identify project risks, and hence potential liabilities, which will subsequently need to be proactively managed by Celtic Interconnector DAC. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]. In that context, liabilities will be limited to the excess of the [REDACTED] policy, in the event of a claim, or any uninsurable project risks (which will be defined during the aforementioned risk assessment undertaken by EirGrid and RTÉ).

The only other form of financial liability during the construction phase is in the event of project abandonment. The nature of the EirGrid's contractual relationship with RTÉ, coupled with the assurances relating to the regulatory framework model which we are seeking from the CRU, should serve to limit the risk that the construction of the interconnector would start and then be ceased prior to commissioning.

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<sup>15</sup> [REDACTED]

### **Operational Phase**

The main liabilities to be considered by the CRU at this stage relate to periods when the interconnector will be unavailable to the market, meaning that contracts with trading parties cannot be honoured. This will happen in either of the following scenarios:

- The interconnector is unavailable as a result of an unplanned outage, leading to an interruption of flows (e.g. there has been unforeseen damage to the asset); or
- The interconnector is unavailable during a period of planned maintenance work, which was deemed to be required after the point in time that capacity was procured by traders for that period.

Under both these situations, the context of the pan-European Network Codes should be considered. These Network Codes stem from the requirements of the Third Energy Package and seek to harmonise the way in which key concepts relating to energy markets are applied in EU Member States. These Network Codes have entered into force and the obligations therein will therefore apply to EirGrid and RTÉ in their operation of the Celtic Interconnector.

The Network Codes (specifically the Forward Capacity Allocation Guideline and the Capacity Allocation and Congestion Management Guideline) have resulted in interconnector operators bearing increased risk relating to the firmness of the interconnector capacity. In short, interconnector operators must now compensate, rather than reimburse, affected parties if they can no longer flow power in line with the market's instructions. Under the terms of the pan-European Harmonised Allocation Rules, reimbursement will only occur in the case of a Force Majeure event, although it should be noted that significant, unusual events in the recent past, including the cable strike on RTÉ's *Interconnexion France-Angleterre (IFA)*, have not been deemed to qualify as a Force Majeure event.

Barring instances of gross negligence by any one particular party, these costs will be shared on a 50-50 basis between EirGrid and RTÉ, regardless of whether the outage is caused by technical issues on RTÉ's interconnector assets, or EirGrid's interconnector assets. This is predicated on the understanding that both parties will act as prudent asset managers and interconnector operators. It should be emphasised, however, that this cost-sharing only relates to actions undertaken as part of the management of the Celtic Interconnector; the money flows associated with onshore system operators' restrictions of interconnector capacity are outlined in the European Network Codes, to which RTÉ and EirGrid will need to adhere.

It is proposed that these market-related liabilities, in the event of unavailability of the interconnector, are managed separately to general OpEx. This is in keeping with how RTÉ will recover the associated compensation as part of the French transmission tariff model; in the Investment Request of September 2018, it states that "*[RTÉ's] OPEX such as purchases of energy to compensate electric losses are subject to a specific regulation*".

## 4 Project Financing<sup>16</sup>

The total project costs for recovery under the Celtic Regulatory framework are 100% of the capital costs, net of any grant monies, as incurred by EirGrid in line with the CBCA decision. Such capital costs are all of the capital costs to EirGrid's account including that incurred in the development phases.

### 4.1 Cost Recovery of Development Phases

For 'onshore' transmission capital-expenditure (CapEx) projects, the costs incurred by EirGrid in the investigative phase are remunerated in terms of the carrying cost through the 'Stage 1 Side RAB' and in terms of principal (inflation adjusted) by ESB Networks at the point of transfer whereupon they are then added to the ESB transmission Regulatory Asset Base (RAB).

EirGrid proposed similar arrangements be put in place for strategic projects, such as the Celtic Interconnector, with the carrying cost of expenditure remunerated through a Strategic Project Side RAB and the principal ultimately recovered under the project, should it proceed, or be returned to EirGrid through the tariffs over a reasonable time period (e.g. 3-5 years) in the event that the project ultimately does not progress to completion. These arrangements were approved by the CRU and have applied to date.

In 2014 the CRU approved the framework (CER/14/427) for the recovery of phase 1 (feasibility) of the project. The framework provided that provided EirGrid's share of the costs in this phase (up to €5.34m) could be recovered on the basis that:

1. The carrying cost only of the expenditure (initially charged at the WACC approved under the PR3 mid-term WACC review, and thereafter at the PR4 and subsequent WACC rates) being added to the approved TUoS charges until a final determination of the project is completed<sup>[17]</sup>;
2. The principal, is placed in the Side RAB, being recovered by EirGrid (inflation adjusted) should the project proceed, or be returned to EirGrid through the Transmission Use of System (TUoS) Tariffs over a reasonable time period (e.g. 3-5 years) in the event the project ultimately does not progress to completion.

In 2016 the CRU reaffirmed the framework in CER/17/007 the recovery of phase 2 (Initial Design and Pre-Consultation) of the project. The EirGrid costs associated with this activity totalled approximately €4m. EirGrid welcomed the roll forward of the approved framework of the monies forecast to be incurred as reflected in the 2020 Revenue Decision (CRU/19/103).

The project has now moved into Phase 3 (Detailed Design and Consents). The estimated costs to EirGrid in this period including reconciliation costs arising from earlier phases<sup>18</sup> and net of grants received to date in Phase 3 are approximately €22m. This will take the project up to the point of Final Investment Decision (FID). [REDACTED]

<sup>16</sup> Cognisant that how revenues are described and accorded under different regulatory regimes has the potential to cause confusion it is important that there is a clear understanding of the different revenue groupings that are relevant to EirGrid TSO and the arrangements in Ireland – this is summarised in Appendix 4

<sup>17</sup> Under this arrangement EirGrid recovers only the real (non-inflation-adjusted) carrying cost of the expenditure in the development phases until a final determination of the project is completed (FID). This is reflected in the model that accompanies this submission.

<sup>18</sup> In line with the CBCA decision, all costs of the project, including those for Development Phases to date are to be attributed 65:35. A resettlement of phase 1 and 2 costs is therefore required to move from the originally assumed 50:50 basis to the approved regulatory CBCA arrangements.

[REDACTED]

From FID, on the basis the project proceeds, all of the costs incurred in the development phases and future costs are added to the Celtic RAB the enduring arrangement for recovery, set out below, will apply.

EirGrid seeks written confirmation from the Commission that the approach from Phase 1 and 2 continues to apply to this Phase 3 expenditure.

## 4.2 Financing Strategy

EirGrid is developing the Celtic Interconnector under its TSO licence. EirGrid separately provided the CRU with extensive information on both its corporate financing and licence specific financial arrangements as part of the PR5 process<sup>20</sup>.

As the CRU is aware, EirGrid's capital structure is atypical. At present EirGrid is zero-gearred in respect of the RAB assets under its TSO licence; at the same time EirGrid holds and has drawn significant standby debt facilities to manage working capital imbalances it is exposed to by virtue of its functions. In order to support these facilities EirGrid holds a level of contingent and available cash or equity on its balance sheet.

The nature of EirGrid's borrowings means that EirGrid cannot achieve typical Net Debt: EBITDA ratios which lenders lending to infrastructure projects would typically expect. Rather, and recognising that EirGrid has not yet tested the market, and the ability to raise funding will itself be contingent on the regulatory support provided, EirGrid believes that a sufficient debt service cover ratio (DSCR)<sup>21</sup> combined with a clear commitment as to regulatory recovery of the principal must be achieved to give comfort to lenders that EirGrid will be able to service its debt repayment obligations. The appetite of the debt markets to finance the project, and indeed debt providers' views of the overall licence and wider corporate funding structures, will ultimately determine the preferred financing structure for the project.

## 4.3 Asset Life/ Financing Tenor

EirGrid is of the view that the regulatory asset life of the cable should be c.25 years from the date of commissioning. This is consistent with EirGrid's view of the available tenor of financing for the project.

It would be commonplace to source both construction and term funding at the same time and EirGrid intends to follow this practice.

When construction is complete and the Celtic Interconnector has completed its commissioning phase, EirGrid will convert its construction loan into a term loan for a period consistent with the

<sup>19</sup> [REDACTED]

<sup>20</sup> EirGrid separately submitted to the CRU its PR5 Business Plan Questionnaire (BPQ).

<sup>21</sup> [REDACTED] the definition of DSCR employed by EirGrid is

DSCR = Cash Available for Debt Service / Total Debt Service

- Cash Available for Debt Service = Profit After Tax + Interest + Depreciation + Tax Charge - Grant Amortisation - Tax Cashflow
- Total Debt Service = Repayment of debt principal and payment of interest

regulatory asset life. EirGrid and its corporate finance advisers, Goodbody, believe that it will be possible to source an overall financing tenor for a period of 25 years; [REDACTED]

The debt financing of the Celtic Interconnector is likely to follow EirGrid's usual financing procedures and will be put out to a competitive process. [REDACTED]

[REDACTED]. The ultimate debt structure, and the ultimate financial structure employed by EirGrid, will only be determined following the outcome of both market soundings and the competitive tender process.

While the assumed asset life for the purpose of setting the regulatory framework is 20 - 25 years from the date of commissioning, the outturn operational life is not tied to this period. CapEx required to either extend the life of the asset or decommission the asset will be taken based on the best available information at that time. Where such a decision drives CapEx costs on the TSOs, the TSOs would engage with the NRAs as required to assess the efficient costs to be incurred, the final treatment of same and the appropriate allocation of the costs between the parties. This is consistent with the onshore arrangements in France and Ireland.

EirGrid therefore proposes a regulatory recovery life of 25 years on a straight line basis from the date on which expenditure is incurred be adopted from FID. This basis of recovery is consistent with the arrangements in respect of onshore assets, adjusted for appropriate regulatory life, and ultimately reduces the carrying costs and opening RAB value of the project, to the benefit of customers.<sup>22</sup>

#### **4.4 Cost of Capital**

As part of the price review process the CRU determines its view of an efficient cost of capital for EirGrid's licensed TSO business. This is carried out every five years.

The CRU's determination is based on its assessment of the notional efficient capital structure and that which an efficient licensee would require to finance its activities.

The CRU, as part of the recent PR5 Determination (CRU/20/152), has determined a WACC of 3.8% real pre-tax, based on notional gearing of 55% and a real pre-tax cost of debt of 1.74% and real pre-tax cost of equity of 6.4%<sup>23</sup>.

In each instance EirGrid proposes that the WACC be applied on a nominal (as opposed to real) basis. This obviates the need for indexation of the RAB and reduces costs to future consumers. It is also consistent with the framework applied to the RTÉ element of the investment.

In terms of the enduring project financing, given the thinness of the EirGrid balance sheet and the atypical length of project financing required by EirGrid for the Celtic Interconnector, in order to enable the project to be financed, the following elements need to be confirmed:

<sup>22</sup> [REDACTED]

<sup>23</sup> This equates to the nominalised WACC of 5.15%. In the event that actual HICP inflation transpires to be materially different to that assumed by the CRU in the setting and determining the Real WACC and adjustment through the Annual Revenue Adjustment process may be necessary.

- (i) the applicable WACC will be that determined by CRU under the extant price control process (PR6, PR7 etc.);
- (ii) the WACC shall be applied to the RAB on a nominal basis [i.e.  $(1+WACC)*(1+HICP)-1$ ];
- (iii) the WACC shall be set such that the Debt Service Cover Ratio (DSCR) under the notional WACC x RAB model with 55% Gearing shall be at least 1.8 in each period, consistent with that required for strong investment grade credit rating and a financeable TSO<sup>24</sup>; and
- (iv) in terms of the indexation that no negative inflation shall apply (i.e. the nominal WACC shall be floored at the real WACC).

#### **4.5 Returns and Financial Model**

The Celtic model, [REDACTED], is premised on the following:

- A WACC x RAB framework – based on notional capital structure of 55% gearing consistent with the general approach adopted by the CRU;
- 100% of the outturn costs of the project borne by Ireland, net of any Grants where applicable will be added to relevant Regulated Asset Base (RAB);
- Capital invested in the project will be recoverable over 25 years from the date of incurrence on a straight line basis;
- WACC is applied on a nominal basis uplifted for HICP (i.e.  $(1+WACC)*(1+HICP)-1$ ). The WACC employed is that determined by the CRU as part of its PR5 process;
- The only revenue assumed in the model is the Ireland allocation of forecast Congestion Rent (noting congestion rent will be shared 50:50 between EirGrid and RTÉ), cognisant of the evolving European framework for interconnectors as set out in Section 3.3.

#### **4.6 Effect on Tariffs**

Ireland's contribution towards the cost of the Celtic Interconnector will be supported by transmission tariffs. This is consistent with the framework as set out in Section 2A of the Electricity Regulation Act, 1999 (as amended). The cost of the development and operation of the transmission system are recovered via the Transmission Use of System Tariffs on a per MWh basis.

The tariffs are set on a per MWh basis, by reference to a forecast demand provided by EirGrid to the CRU each year. Costs associated with the provision of ancillary services, carrying out actions to maintain security of supply and facilitate RES-E and interconnection projects are added to the network costs portion of demand customers.

Preliminary analysis included in the Investment Request set out the potential impact on tariffs in Ireland on the assumption of a 50-50 sharing of total project's costs and revenues between the TSOs and no CEF grant.

Following the receipt of the CEF grant funding decision for the project, taking into account the proposed regulatory framework as set out in this paper and proposed WACC submitted as part of the EirGrid TSO PR5 submission an updated assessment of the potential impact on tariffs<sup>26</sup> in Ireland

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<sup>24</sup> The DSCR would need to hold both under the base case price control assumptions but also under appropriate downside risk scenarios as well.

<sup>25</sup> [REDACTED]

<sup>26</sup> The tariff figures are illustrative only and will change with the underlying demand, inflation and the ultimate evolution of the overall TUoS revenues as approved by the CRU.

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has been carried out and is provided. Figure 2 below provide a high level summary of the average additional costs to be supported by TUoS on an annual basis (following Commissioning of the Interconnector) based on four scenarios

- project outturn costs are €930m
  - No Congestion Revenues
  - Net of forecast Congestion Revenues <sup>27</sup>
- project outturn costs are €930m+20%<sup>28</sup> (€1.12bn)
  - No Congestion Revenues
  - Net of forecast Congestion Revenues

<b>Tariff Impact Summary</b>				
<b>Total Project Outturn Cost</b>	<b>at €930m</b>		<b>at €930m+20% (€1.12bn)</b>	
	<b>No CR</b>	<b>Net of CR</b>	<b>No CR</b>	<b>Net of CR</b>
<b>Average TUoS Support per year (€m)</b>	31.08	3.87	36.92	9.70
<b>Average pricing impact over the life of the asset (% TUoS Tariff Impact based on Forecast 2026 Revenues and Demand)</b>	5.24%	0.68%	6.16%	1.70%
<b>Average €/MWh impact (x times) (based on Forecast 2026 Revenues Demand)</b>	0.87	0.11	1.03	0.27
<b>Average Cost per end customer per year (€/yr.) (based on Forecast 2026 Revenues and Demand)</b>	3.65	0.45	4.33	1.14
<b>Average % of Domestic Customer Bill (based on Forecast 2026 Revenues and Demand)</b>	0.36%	0.05%	0.43%	0.11%

Figure 2: Tariff Impact Summary

<sup>27</sup> Note 50% of estimated congestion revenues would flow to Ireland

<sup>28</sup> The +20% figure is for illustrative purposes only. The figure employed as it aligns to the framework in the CBCA Decision

## 5 French Model<sup>29</sup>

### Overarching Principles

The French transmission system is owned and operated by RTE and there is no distinction between RTE's onshore assets and the RTE -owned part of interconnectors. The rationale behind this is that the transmission grid constitutes an essential facility and the privatisation of both national monopolies and national public services is prohibited by the French Constitution. This also prohibits the privatisation of RTE and, hence, the establishment of an independent (pseudo-merchant) interconnector operator within the RTE group. Hence, RTE's 'onshore' TSO licence covers obligations relating to interconnector operation. This is considered to support the development of a consistent operating framework, incorporating both the wider meshed AC network within CWE and subsea HVDC interconnectors.

### RAB x WACC in France

For the French-backed part of Celtic, a RAB x WACC model over the asset lifetime will apply, mirroring the approach adopted across the French onshore and offshore network (including RTE's other interconnector assets) and that proposed by EirGrid above. A WACC that is applied to RTE's transmission assets in the French framework for revenue and tariff regulation (TURPE), albeit with an asset lifetime that is specific to the Celtic Interconnector.

RTE has advised that CRE adjust the nominal risk-free rate WACC by injecting a risk premium into their calculation. In effect, this is comparable to a WACC that has been applied with inflation, as this is captured in CRE's risk premium.

The final project cost born by RTE (after the deduction of any grant received by RTE) will be included in the RTE RAB. The parallel incentive mechanism serves to incentivise RTE to limit any additional costs.

### Project Financing

As RTE is financed at a corporate level, RTE's share of Celtic will be absorbed into the financing of RTE's other investments. [REDACTED]

[REDACTED] In the context of RTE's other operational activities and obligations, the Celtic Interconnector would only form a small part of RTE's general corporate financing requirements; [REDACTED]

### Celtic Metrics

In the context of Celtic, this means that RTE's share of Celtic will be treated as part of the national transmission system, just like all RTE assets, and funded by the transmission network tariff mechanism. There will be performance incentives that relate specifically to performance relating to the Celtic Interconnector although these will be calibrated against RTE's other performance obligations, in the context of system operation across the whole of France.

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<sup>29</sup> This information is premised on provided by RTE as part of the Celtic Investment Request, INEA submission and in email correspondence dated 04 February 2020.

## **6 Conclusion**

The Celtic Interconnector is being developed by EirGrid under its TSO licence. In order to be able to progress the funding for the project EirGrid requires certain surety regarding the basis of regulatory recovery. In setting out the framework for recovery EirGrid has been particularly cognisant of:

- the framework which pertains in respect of the other assets it develops, including on shore assets, and the CRU's framework in respect of same; and
- the importance of commonality where possible with the arrangements which will apply to the RTÉ element of the Celtic Interconnector, consistent with the principle of harmonisation as set out in CRU/18/119.

EirGrid seeks confirmation that the CRU will employ a RAB x WACC framework, consistent with the general regulation of EirGrid's business and also the treatment of RTÉ by CRE and that all capital expended shall be added to the opening value of the RAB. Any incentive or penalty regime in relation to the timely and cost effective delivery of the Celtic Interconnector shall be separate to the RAB itself, shall be proportionate, and shall be designed to be such that it does not compromise the ability for the interconnector to be financed.

EirGrid seeks confirmation that the RAB will be written down and returned to EirGrid over 25 years from the date of incurrence of expenditure with a nominal WACC (real pre-tax WACC consistent with the TSO business indexed by the Harmonised Index of Consumer Prices)<sup>30</sup> applied to the RAB which would not itself be indexed and be written down on an historic cost accounting basis.

Given the thinness of the EirGrid balance sheet, and the atypical length of project financing required by EirGrid, in order to enable the project to be financed EirGrid requires two further elements to be confirmed by CRU at this stage:

- (i) that in terms of the indexation no negative inflation shall apply (i.e. the nominal WACC shall be floored at the real WACC); and
- (ii) that the WACC shall be such that the Debt Service Cover Ratio (DSCR) under the notional WACC RAB model with 55% gearing shall be at least 1.8 in each period, consistent with that required strong investment grade credit rating for the financeability of EirGrid's TSO business.

EirGrid also seeks confirmation that the CRU approved framework set out in (CER/14/427) continues to apply for the recovery of monies incurred until the Final Investment Decision.

All other aspects, including the precise nature of the incentives or the approval of enduring operational costs or future CapEx spend (e.g. for decommissioning) are not required at this time and in EirGrid's view would be the subject of separate engagements/consultations as required during the development/construction phases.

To assist the CRU in its considerations EirGrid has set out in Appendix 3 to this document a draft of the decision letter in a form we believe would support our engagement with potential lenders based on our experience from previous funding exercises and reflecting the proposal as set out.

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<sup>30</sup> i.e.  $(1+WACC)*(1+HICP)-1$

## 7 Acronyms

AC	Alternating Current
ACER	Agency for the Cooperation of Energy Regulators
BPQ	Business Plan Questionnaire
CACM	Capacity Allocation and Congestion Management Guideline
CapEx	Capital Expenditure
CBCA	Cross-Border Cost Allocation
CEF	Connecting Europe Facility
CIDAC	Celtic Interconnector DAC
CRE	Commission de Regulation de l’Energie – (Commission for the Regulation of Energy, the French NRA)
CRU	Commission for Regulation of Utilities
CWE	Central Western European
DSCR	Debt Service Cover Ratio
EEZ	Exclusive Economic Zone
EIB	European Investment Bank
EirGrid	The TSO for Ireland
EWIC	East West Interconnector
FCA	Forward Capacity Allocation Guideline
FID	Final Investment Decision
HICP	Harmonised Index of Consumer Prices
HVDC	High Voltage Direct Current
IFA	Interconnexion France-Angleterre (an Interconnector between Great Britain and France)
IJV	Incorporated Joint Venture
INEA	EU Innovation and Networks Executive Agency
MWh	Mega-Watt hours
NRAs	National Regulatory Authorities
OpEx	Operational Expenditure
PCI	Project of Common Interest
PR5	Price Review 5
PR6	Price Review 6
RAB	Regulatory Asset Base
RES-E	Renewable Energy Sources – Electricity
RTÉ	Réseau de Transport d’Électricité (Electricity Transmission Network, the French TSO)
SEM	Single Electricity Market
TSO	Transmission System Operator
TUoS	Transmission Use of System Tariffs
TURPE	Tarif d’utilisation du réseau public d’électricité (the tariff for use of the public electricity transmission and distribution networks in France)
WACC	Weighted Average Cost of Capital

## 8 Appendices

- 1 *Not Used*
- 2 [REDACTED]
- 3 Draft Decision Letter
- 4 EirGrid TSO Revenues & the arrangements in Ireland
- 5 [REDACTED]
- 6 [REDACTED]

***Appendix 1 – Not Used***

(KPMG Report on cost of capital, as referenced in April 2020 submission removed as WACC figures employed in this update are by reference to the CRU PR5 Determination)

Appendix 2 - [REDACTED]

[REDACTED]

## Appendix 3 – Draft Decision Letter

ON HEADED PAPER OF CRU

[To:]

[Date]

### Re: The Celtic Interconnector Project

Dear [ ]

The Commission for the Regulation of Utilities (the ‘Commission’) confirms that it has in conjunction with Commission de Regulation de l’Energie (CRE), the French Commission for the Regulation of Energy) adopted a coordinated decision<sup>31</sup> on the cross-border cost allocation (**CBCA**) of the Celtic Interconnector project’s investment costs between Ireland and France and their inclusion in each country’s tariffs pursuant to Article 12 of Regulation (EU) No 347/2013<sup>32</sup>.

The Commission hereby confirms that:

- 1.1 The Celtic Interconnector and costs associated with the project are in the long term interest of final customers and is in the public interest for the purposes of Section 2A of the 1999 Act.
- 1.2 Section 2A of the 1999 Act provides that an interconnector determined to be in the public interest may be considered to be part of the transmission system for the purpose of calculating charges and imposing charges for use of the transmission systems.

The Commission agrees and acknowledges that:

- 1.1 In accordance with *inter alia* the requirements of the Regulation 8 of SI 445 (2000) and the Transmission System Operator licence issued by the CRU to EirGrid plc, EirGrid is developing the Celtic Interconnector in conjunction with Réseau de Transport d’Électricité (RTÉ), the French Transmission System Operator”.
- 1.2 In accordance with with *inter alia* the requirements of the Section 2A(3)(b) of the Electricity Act 1999, as amended, (the 1999 Act), and licence requirements as determined by the CRU, that EirGrid plc. will operate the EirGrid owned elements of the Interconnector as part of the transmission system of Ireland.
- 1.3 In line with that CBCA decision that EirGrid’s element of the costs of the project will be recoverable through the Transmission Use of System Charges tariffs in Ireland which are regulated and approved by the Commission pursuant to Section 35 and 36 of the 1999 Act, on the basis of:

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<sup>31</sup> CRU/19/125

<sup>32</sup> Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure [2013] OJ L 115/39.

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- 1.3.1 A WACC x RAB framework, consistent with the general regulation of EirGrid's TSO business, and that all capital expended shall be added to the opening value of the RAB;
  - 1.3.2 the applicable WACC will be that determined by Commission under the extant price control process (PR5, PR6, PR7 etc.) indexed by the Harmonised Index of Consumer Prices pertaining (a nominal WACC);
  - 1.3.3 that the WACC shall be such that the Debt Service Cover Ratio (DSCR) under the notional WACC RAB model with 55% gearing shall be at least 1.8 in each period, consistent with that required for strong investment grade credit rating;
  - 1.3.4 that in terms of the indexation (by HICP) that no negative inflation shall apply (i.e. the nominal WACC shall be floored at the real WACC);
  - 1.3.5 that from Final Investment Decision (FID) the RAB will be written down and returned to EirGrid over 25 years on a straight line basis from the year of incurrence of expenditure (i.e. 4% per annum);
  - 1.3.6 that whilst an incentive regime for the timely and cost effective delivery remains to be finalised that the scale of monies at risk concerning the delivery shall be no greater than the equivalent of 10% of the equity under the notional capital structure in the project @€930m €11.5m; and shall be applied separately to the provision in clause 1.3.1.
- 1.4 The Commission also confirms that the approved framework set out in (CER/14/427) for the recovery of monies incurred continues to apply until the Final Investment Decision.

Yours faithfully

[ ]

## Appendix 4 – EirGrid TSO Revenues & the arrangements in Ireland

Cognisant that how revenues are described and accorded under different regulatory regimes has the potential to cause confusion it is important that there is a clear understanding of the different revenue groupings that are relevant to EirGrid TSO and the arrangements in Ireland.

EirGrid TSO’s Revenue requirement and in turn the discharge of the financeability requirement by the CRU in accordance with the arrangements as set out in the Electricity Regulation Act, 1999 is by reference to the totality of the TSO’s licenced activities and obligations. This includes TUoS revenues plus other TSO revenues (e.g. Public Service Obligation costs (inc RESS) and costs of administering same, Celtic Development Costs (funded through Celtic revenues backstopped by TUoS), Imperfections etc.).

TUoS Revenues are a subset of the EirGrid TSOs Revenue requirement and encompass revenues provided for under the relevant Price Control (PR5 etc.) plus backstop support for interconnectors (EWIC, Celtic, Other) and other costs recovered through TUoS but not part of the Price Control (PR5 etc.) (e.g. Guarantees of Origin, Strategic Side RAB projects, etc.)

PR5 Revenues are a subset of the TUoS Revenues - the price review process deals with the allowable revenues which are part of the PR5 process (effectively the TSO price control and the TAO price control); the PR5 determination constitutes a Section 35 direction under the Act.

Effectively these three requirements “nest” within each other. This is illustrated in the diagram below.

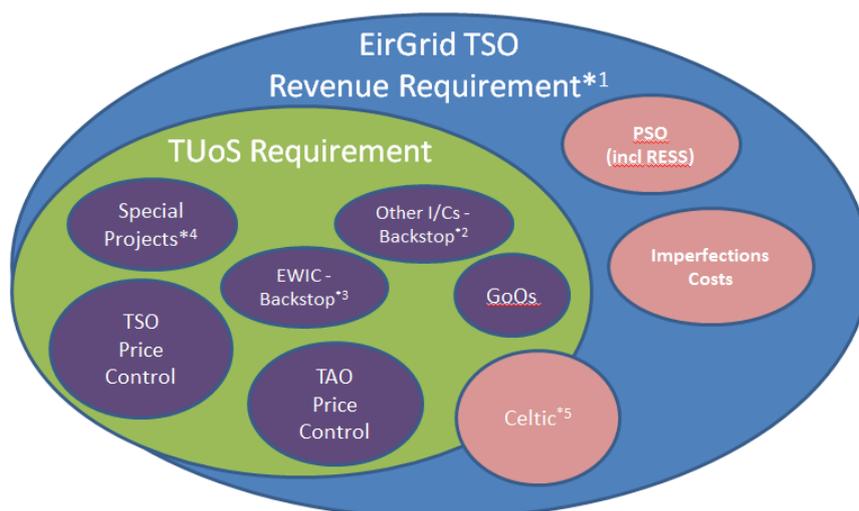


Figure 3: EirGrid TSO Revenue Requirement

### Notes associated with Figure 3

\*1 – Financeability duty applies to the largest circle

\*2 – I/C costs are in the first instance covered by the revenues earned by the I/C (Congestion Income etc.) it is only where an I/C has TUoS underpinning and the I/C needs to call on that underpinning that such costs form part of the TUoS Requirements E.g. If the Greenlink I/C had such a framework

\*3 – EWIC costs are in the first instance covered by the revenues earned by the I/C (Congestion Income etc.) it is only where EWIC needs to call on the TUoS underpinning that such costs form part of the TUoS Requirements

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\*4 – E.g. Recovery of projects such as I-SEM Implementation / IIDM etc... where not in PR5

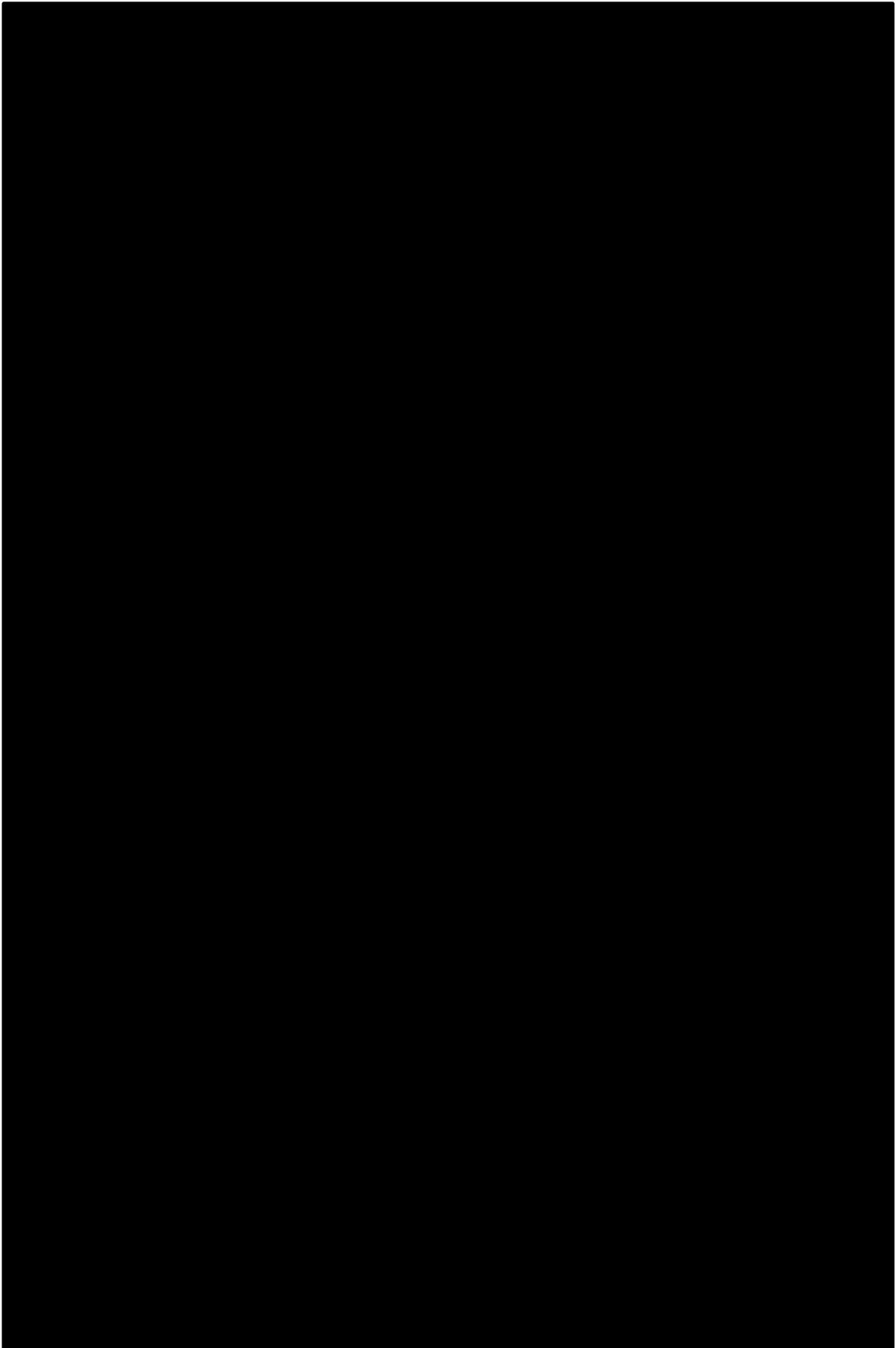
\*5 – In regard to the Celtic I/C

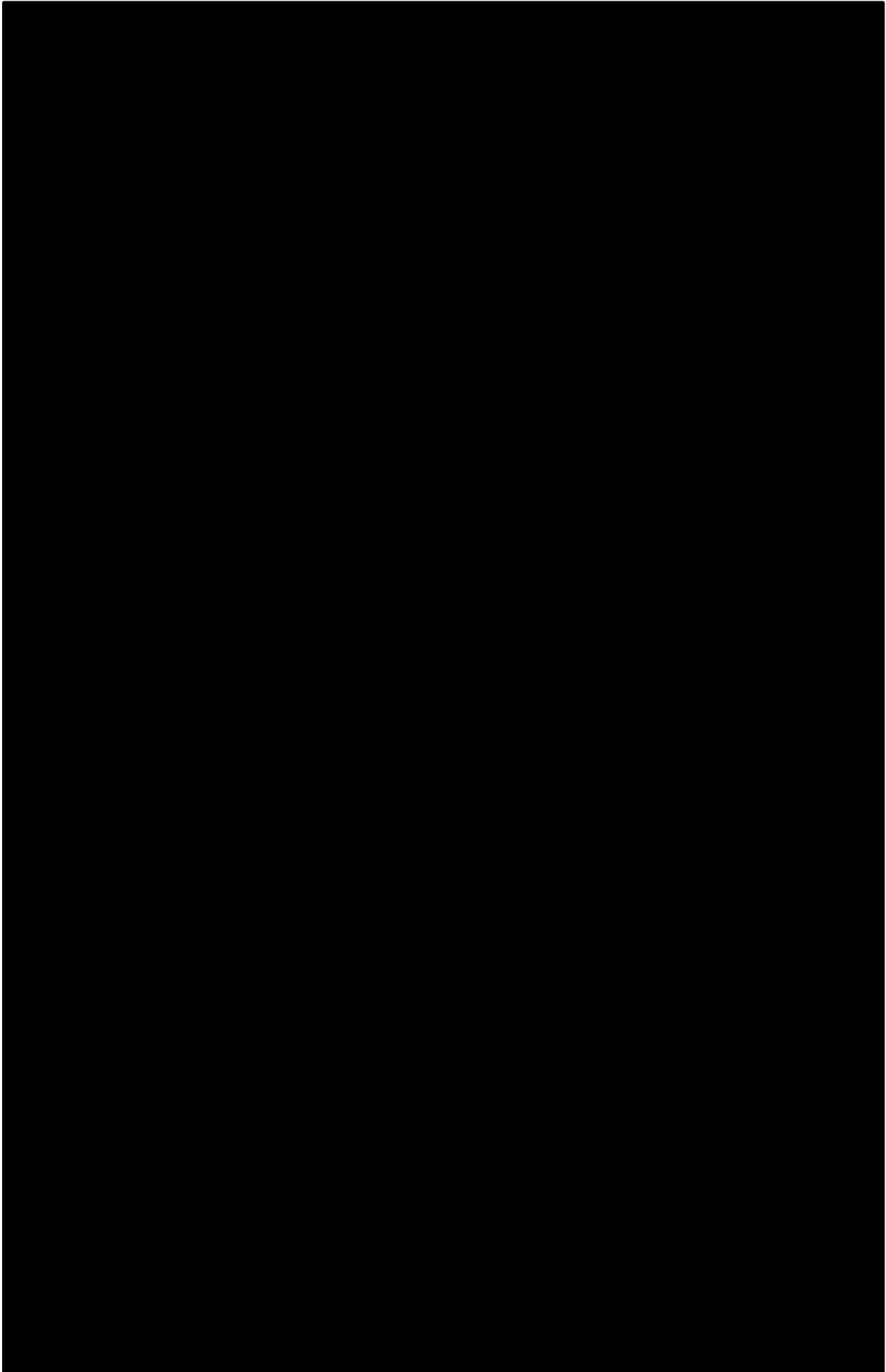
(a) Up to FID only the carrying costs are provided for under the TUoS Requirement,

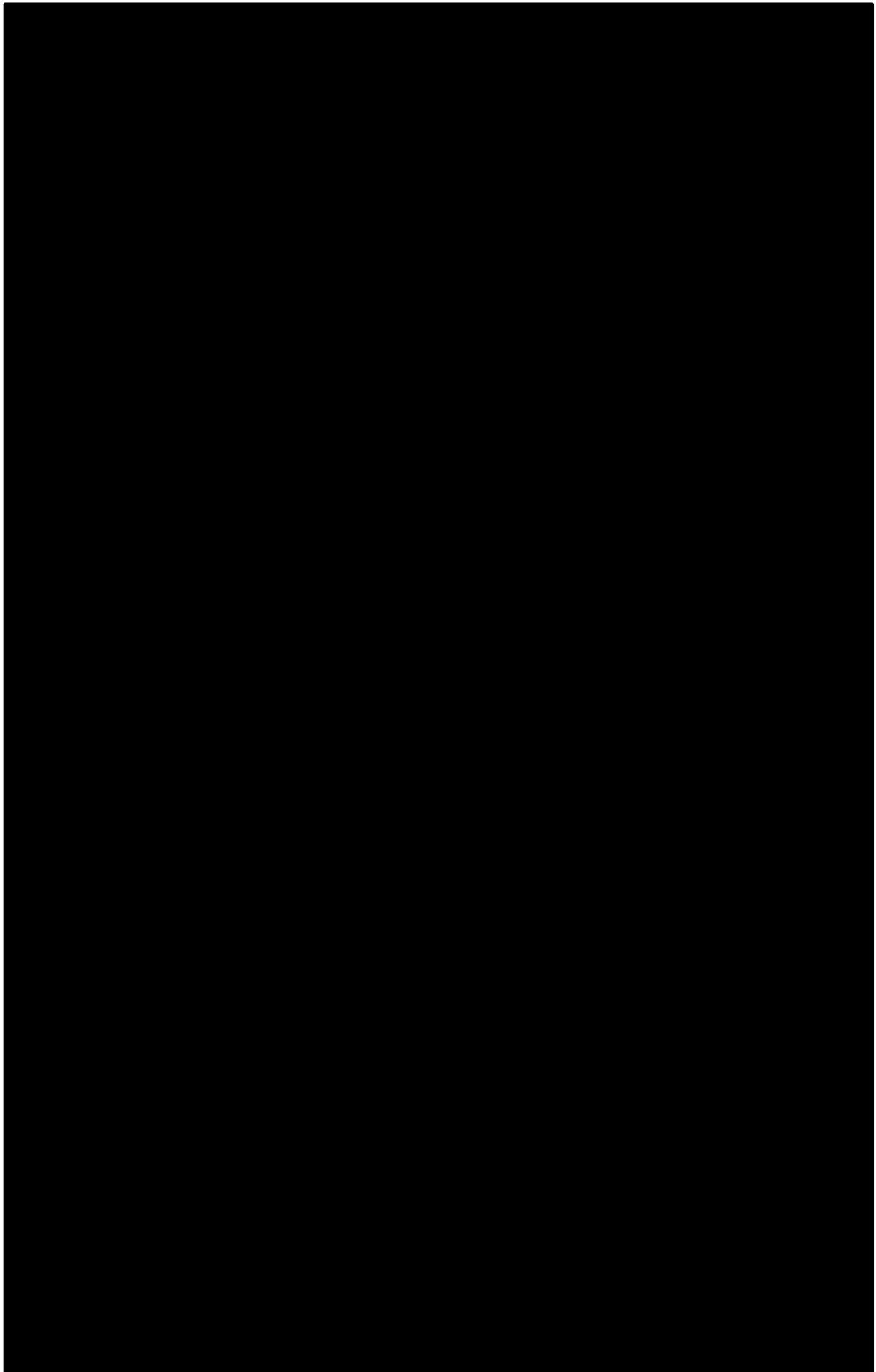
(b) From FID to Commercial Operation – Depreciation and Return on the RAB is proposed to be provided for under the TUoS Requirement,

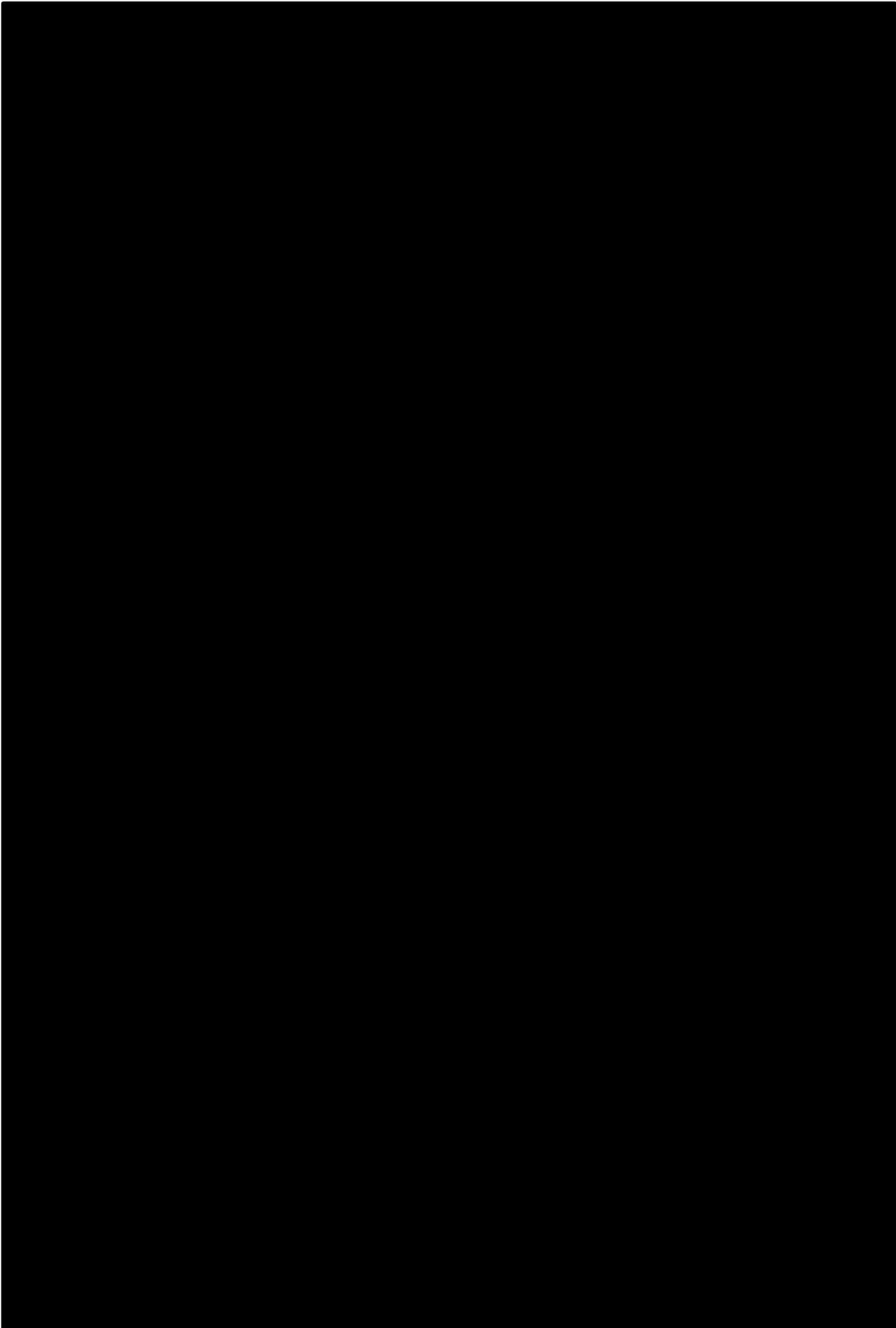
(c) Post Commercial Operation - Celtic costs are in the first instance covered by the revenues earned by the I/C (Congestion Income etc.) it is only where Celtic needs to call on the TUoS underpinning under the approved framework that such costs would form part of the TUoS Requirements

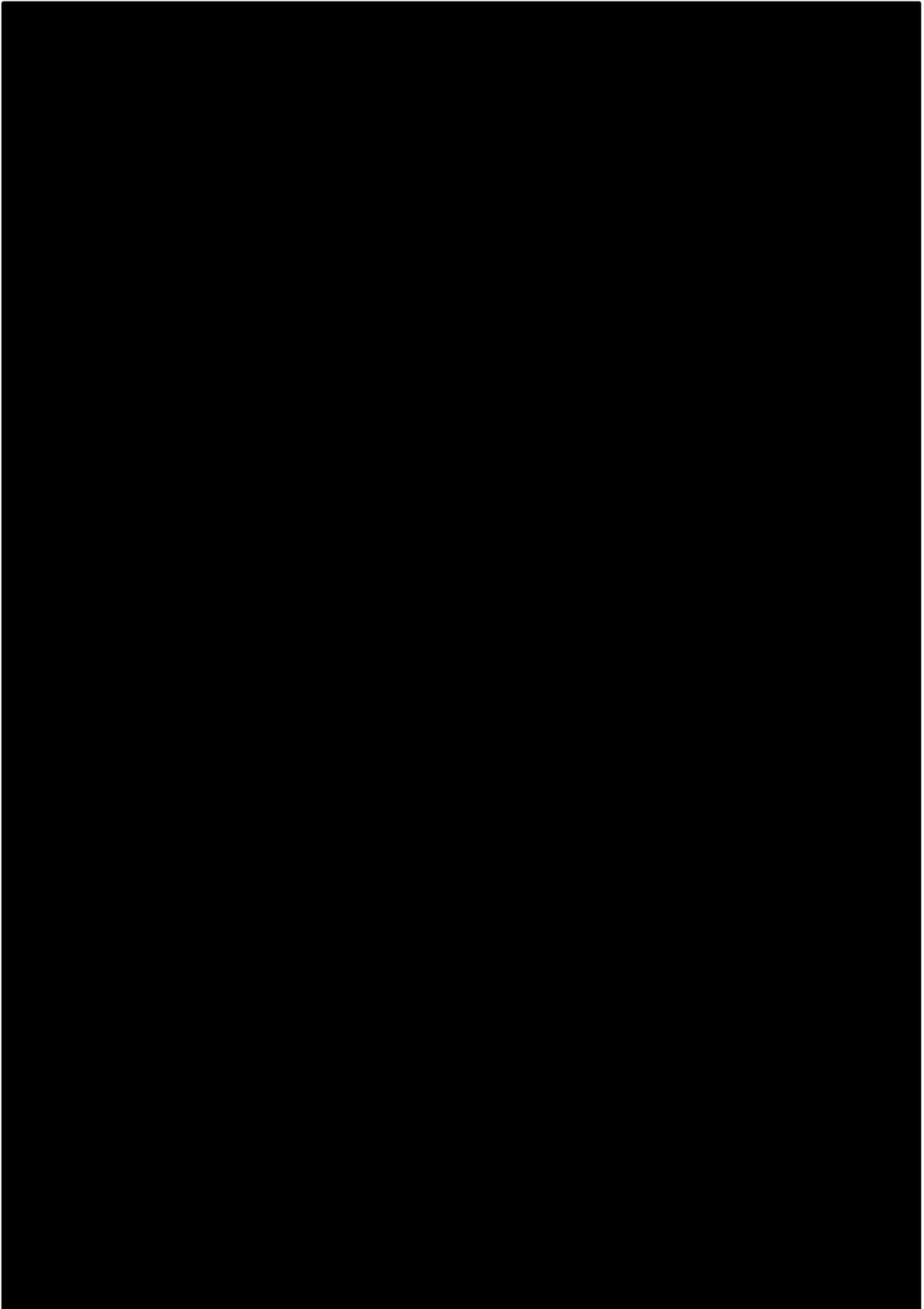
Appendix 5 - [REDACTED]

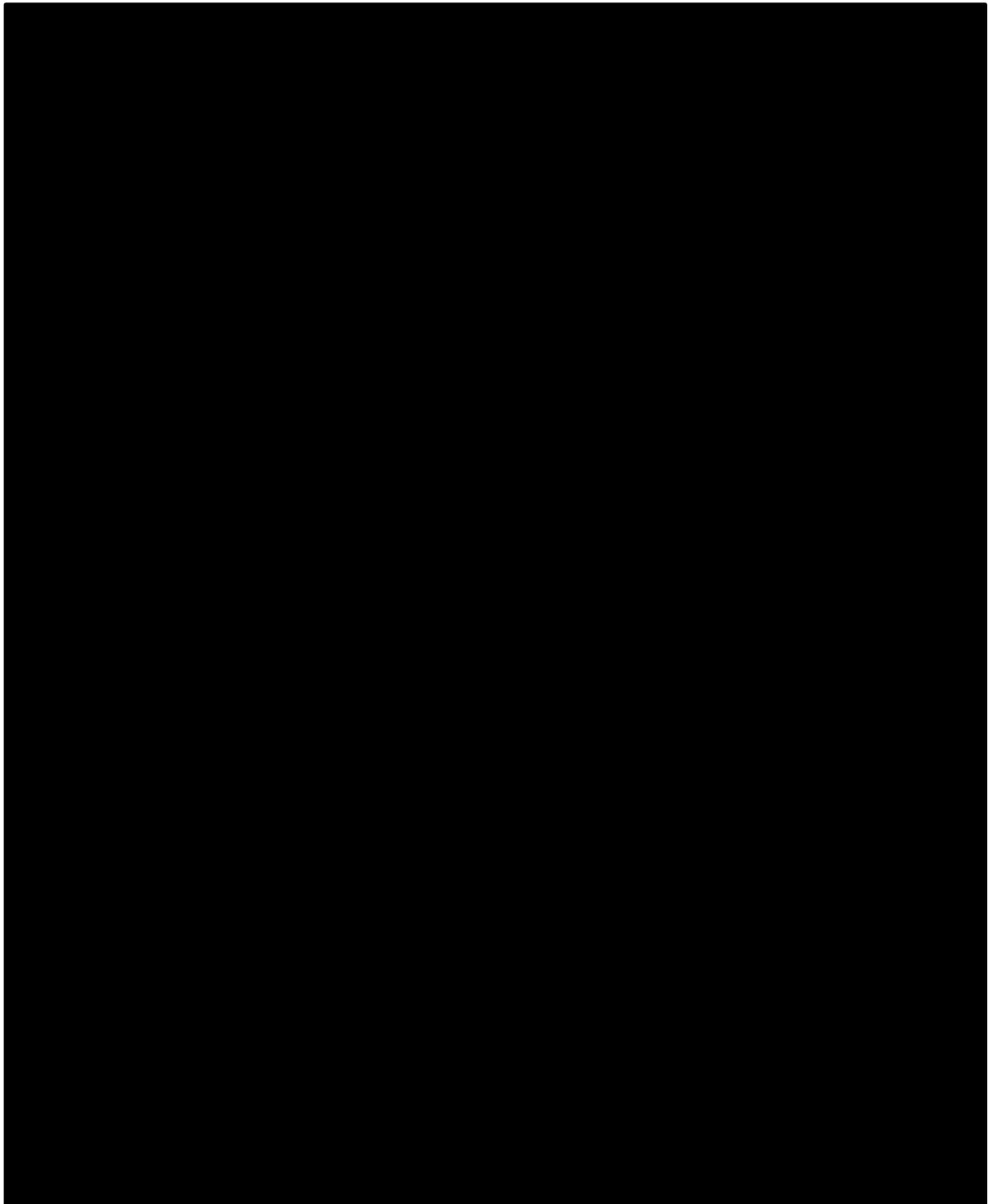












Appendix 6 -

[REDACTED]

[REDACTED]

[REDACTED]

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