

## Application Guidance for the Third Cap and Floor Window for Electricity Interconnectors

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This document sets out the cap and floor regime application process for the upcoming third application window for new regulated interconnectors, following our Interconnector Policy Review decision in December 2021. **Our third application window will be open from 1<sup>st</sup> September to 31<sup>st</sup> October 2022**, and we will welcome applications from interconnector projects able to start operations prior to 2032. We have included guidance for potential applicants on eligibility and submission criteria for the Initial Project Assessment stage. We also propose a new timelines and incentives framework for the third application window to improve our treatment of project delays, which is outlined here and will be subject to further consultation.

Where appropriate, we also reference our Multi-Purpose Interconnectors Pilot Regulatory Framework publication. Further details of our updated needs case assessment framework and how we plan to target this application window will be published in summer 2022.

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## Executive Summary

### The Interconnector Policy Review (ICPR)

In August 2020, Ofgem launched a review of its regulatory policy and approach to new electricity interconnectors – our Interconnector Policy Review.<sup>1</sup> The ICPR and the implementation of its decision support our continued ambition to enable investment in low-carbon infrastructure at a fair cost to GB consumers through our Low Carbon Infrastructure Strategic Change Programme.<sup>2</sup> This review and its implementation contribute towards the big picture of Ofgem’s Decarbonisation Action Plan<sup>3</sup>, specifically, to have more effective coordination in the delivery of low-cost offshore networks.

As a result of the review, we noted in the ICPR decision paper<sup>4</sup> our intention to run a third cap and floor application window for interconnectors alongside a pilot cap and floor regulatory framework for Multi-Purpose Interconnectors (MPIs). These investment rounds contribute to the delivery of Government policy such as the ambitions of achieving at least 18GW of interconnection<sup>5</sup>, and delivering 50GW of offshore wind by 2030.<sup>6</sup>

### Implementation of the ICPR Decision

Since January 2022, we have refined and implemented the decisions outlined in our ICPR decision paper. Following external stakeholder workshops to develop specific aspects with industry, the cap and floor regime has been updated for the third application window to reflect the evolving interconnector investment landscape, and to build upon lessons learnt in previous application windows. This includes updates to the submission requirements, changes to our regime duration incentives for all accepted projects, and ensuring the window better aligns with wider network planning needs. At this stage we are also outlining our preliminary approach to the timelines and incentives applicable to the third application window. However, this section will be subject to further consultation in due course.

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<sup>1</sup> [Open letter: Notification to interested stakeholders of our interconnector policy review](#)

<sup>2</sup> [2022/23 Ofgem Forward Work Programme \(see Part 4: Low Carbon Infrastructure\)](#)

<sup>3</sup> [Ofgem’s Decarbonisation Action Plan | Ofgem](#)

<sup>4</sup> [Interconnector Policy Review - Decision](#)

<sup>5</sup> Energy white paper: Powering our net zero future (accessible HTML version) - GOV.UK (www.gov.uk) (see page 80)

<sup>6</sup> [British energy security strategy - GOV.UK \(www.gov.uk\)](#)

## Next Steps

The third application window will be open from **1<sup>st</sup> September - 31<sup>st</sup> October 2022**, where we will welcome applications from interconnector projects able to start operations **prior to the end of 2032**. Submission guidance and eligibility criteria for applications are included within this publication. We will shortly consult on our proposals for the timelines and incentives framework, outlined in this document. Additionally, before the opening of the application window, we will publish further documents on Ofgem's needs case assessment framework, and targeting of the window, outlining National Grid Electricity System Operator's (NGESO's) analysis on network planning needs and the initial findings of our engagement with neighbouring European National Regulatory Authorities (NRAs). The Cap and Floor financial models that will apply throughout the third window will be developed at the IPA stage to inform our IPA decision.

## 1. Introduction

### Context

#### The cap and floor regime for interconnectors

- 1.0. Electricity interconnectors are the physical links that allow the transfer of electricity across borders, and the cap and floor regime, which has been in place since 2014, is the regulated route for interconnector development in Great Britain.<sup>7</sup>
- 1.1. The cap and floor regime, initially piloted for Nemo Link (1GW) in 2013, and then expanded into two application windows in 2014 and 2016, incentivises development of electricity interconnection by limiting developers' exposure to electricity market price risk. In 2020, the Government committed to working with Ofgem to realise at least 18GW of interconnector capacity by 2030, highlighting the role of interconnection to facilitate a more flexible energy system needed to meet net zero targets. Once complete, the existing projects approved through the cap and floor regime or exempted, will, assuming all proceed, increase GB interconnection capacity to 15.9GW.

#### The Interconnector Policy Review (ICPR)

- 1.2. In August 2020, Ofgem launched a review of its regulatory policy and approach to new electricity interconnectors – our Interconnector Policy Review (ICPR)<sup>8</sup>. The objectives of the review were two-fold: firstly, to establish if there was the need for future GB interconnection capacity beyond the currently approved projects; and secondly to consider Ofgem's approach to the regulation of future GB interconnection. Upon public consultation and stakeholder engagement on the proposals of the four ICPR workstreams<sup>9</sup>, a decision was published in December 2021.
- 1.3. In the ICPR decision we concluded that future interconnector investment is likely to be beneficial, but that we would explore adjustments to the cap and floor regime. We found that the principles of the cap and floor remain appropriate to incentivise further interconnector development, however, our approach to the regime would need to

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<sup>7</sup> [Cap and Floor Regime Handbook](#)

<sup>8</sup> [Open letter: Notification to interested stakeholders of our interconnector policy review | Ofgem](#)

<sup>9</sup> Workstream 1 - Review of the cap and floor regime, Workstream 2 - Socio-economic modelling, Workstream 3 – Wider impacts of interconnection, and Workstream 4 – Multiple Purpose Interconnectors

become simpler, more consistent and more flexible. We decided that this upcoming third application window will be targeted, focusing on mature projects that are able to connect within the next decade, following our long-term decision to integrate future interconnector planning within wider strategic network planning.

- 1.4. We also concluded that the cap and floor regime would, in principle, be a suitable framework for regulating MPIs and therefore chose to open an MPI Pilot assessment framework. Considering that MPIs as an asset class are nascent, we decided that the specific assessment approach for the pilot scheme should remain flexible. Details of this pilot regulatory framework are outlined in a separate publication published alongside this guidance document. We will be accepting applications for the third application window and the MPI Pilot regulatory framework in tandem.
- 1.5. Implementation of the Interconnector Policy Review
- 1.6. Since January 2022, Ofgem has refined and implemented the decisions outlined in the ICPR decision paper. In preparation for the opening of the third application window we have adjusted the regime's eligibility criteria, developed a proposal to adjust the timelines and incentives mechanism, outlined in this publication, and have created an assessment framework for the MPI Pilot scheme. The focus of this publication is to confirm the timing of this application window and to communicate the changes from previous windows.
- 1.7. We have held five interactive stakeholder workshops throughout Spring 2022 on the details of the regime, and the needs case framework applicable to the third window and the MPI Pilot regulatory framework. Throughout these workshops, responses to our proposals were broadly positive. Suggestions to increase flexibility and simplicity within the regime were also welcomed and we have worked to reflect stakeholder feedback in our final positions.
- 1.8. As part of the adjustments to the cap and floor regime, responding to stakeholder feedback and the changing network development landscape, we have decided the following:
  - to increase the maturity that projects need to demonstrate at application stage to ensure as far as possible that projects can be delivered in line with Government ambitions and that potential benefits to consumers and the wider energy system are delivered as planned;



- to increase flexibility for developers by maintaining a 25-year regime for all projects, amending incentive frameworks as appropriate; and
- to expand our needs case assessment framework to include wider energy system impacts when evaluating applications.

- 1.9. The cap and floor regime continues to provide a balance between market-based commercial incentives and a regulated regime. The regime aims to ensure that projects can move forward at pace whilst minimising risk to consumers and maximising incentives for developers.
- 1.10. During our implementation period, we have procured advisors to develop a new framework for our needs case assessment to be used at the Initial Project Assessment (IPA) stage. We have additionally reviewed and modified our approach to the determination of input parameters for the Cap and floor Financial Model 1 (CFFM1) such as inflation rate, interest during construction (IDC), and cap and floor levels. We have also engaged with neighbouring European NRAs and the NGEESO with an aim to better target the third window and MPI Pilot regulatory framework, and to better inform the potential regulatory processes for further interconnection across jurisdictions, as well as the system operability impacts of future interconnection.
- 1.11. In the long-term, as set out in our December 2021 ICPR decision, we will consider cyclical investment windows that are informed by outputs from strategic network planning.

### **Related publications**

[Open letter: Notification to interested stakeholders of our interconnector policy review](#)

[Interconnector policy review: Working paper for Workstream 1 – review of the cap and floor regime](#)

[Interconnector policy review: Working paper for Workstream 2 – socio-economic modelling](#)

[Interconnector policy review: Working paper for Workstream 3 - wider impacts of interconnection](#)

[Interconnector policy review: Working paper for Workstream 4 - multiple purpose interconnectors](#)

[Interconnector Policy Review - Decision](#)

[Decision to open a second cap and floor application window for electricity interconnectors in 2016](#)

[Window 2 IPA Decision](#)

**Consultation on timelines and incentives**

- 1.12. Within this document we discuss potential changes to the timelines and incentives framework of the cap and floor regime for the third window, on which we intend to consult soon. These are laid out in Section 3. This section sets out how Ofgem intends to ensure the progression and timely delivery of projects receiving a cap and floor regime upon completion. We have chosen to consult on these specific aspects of the regime, in addition to stakeholder workshops held earlier this year, given these arrangements have changed significantly since previous cap and floor windows.
- 1.13. A formal consultation with the details of these proposals will be published in due course. However, we have included our preliminary position within this guidance. We welcome your initial comments. Please email this feedback to [Cap.Floor@ofgem.gov.uk](mailto:Cap.Floor@ofgem.gov.uk).
- 1.14. Please note that the consultation will apply to the information in Section 3 only, and the other content of this document should be treated as guidance for submitting applications to the third application window.

## 2. Third application window for electricity interconnectors

### Timing and process

- 2.0. The third window will be open for IPA submissions from **1<sup>st</sup> September to 31<sup>st</sup> October 2022**. Developers can apply anytime within this timeframe. We welcome engagement with developers prior to making a submission, however a formal notification in writing of the intent to apply is no longer necessary, as there has been in previous windows.
- 2.1. After a project has submitted an application, we will undertake an eligibility check to confirm whether the application meets the criteria set out below. Each application must meet all the criteria for the project to be progressed to the IPA stage.
- 2.2. At the beginning of the IPA stage Ofgem will consult developers and other relevant stakeholders in a modelling workshop on the assumptions, scenarios and counterfactuals used in our cost-benefit analysis (CBA). Ofgem will use the CBA to assess each project's needs case. We will assess the projects and relative benefits using this framework, considering the impacts of the project under different scenarios of interconnection development. Further information on the framework for this process is to be confirmed in upcoming publications (see Next Steps). Successful projects will receive IPA decisions to award a cap and floor in principle following a consultation.
- 2.3. After the IPA, the Final Project Assessment (FPA) will take place, where we will assess a project's costs in detail to provide a firm basis for making our final decision on providing a cap and floor regime, and to inform the exact cap and floor levels. Once awarded a cap and floor regime in principle, Ofgem will track project progress through annual reviews.
- 2.4. The regime duration is 25 years. The floor level will come into effect on the date at which the project starts commercial operations, subject to the 60-day trial period provisions set out in our interconnector licence conditions.
- 2.5. The cap level will come into effect on the date at which the project starts commercial operations, irrespective of whether the 60-day trial period provisions have been

successfully satisfied, or when consumers start to underwrite the project through floor payments.<sup>10</sup> The cap will be in place from that date until the end of the regime.

**Figure 1: The process for the IPA stage of the third application window**



## Eligibility criteria

2.6. Applications in the third window must meet the following eligibility criteria and provide the necessary evidence in their application:

- A GB **connection agreement** for connection **prior to the end of 2032**,
- An **interconnector licence** (either granted or application made), and
- **All submission information for the IPA stage** complete.

2.7. See Appendix 1 for further applicant guidance on these criteria.

2.8. Where applicants are unable to satisfy these requirements we invite them, as part of their application, to justify why they should still be considered for the third application window. We would expect to only permit eligibility where the criteria above are not met in exceptional circumstances. We recommend that such project developers engage with us prior to application.

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<sup>10</sup> This means that if, for any reason beyond those set out in the licence provisions, the project does not satisfy the 60-day trial period in its first attempt, the cap will start at the date when the project begins commercial operations.

## **IPA conditions**

- 2.9. Our IPA conditions remain an important tool to protect consumers by providing us with the ability to intervene if a project has materially deviated from the basis upon which it was awarded a cap and floor regime in principle.
- 2.10. Whilst we will confirm these alongside our IPA decisions, we expect that the IPA conditions for the third window will be:
- Connection date before the end of 2032, and;
  - No material changes in project parameters that could impact the needs case, including cost escalation.
- 2.11. Failure to satisfy these conditions may result in Ofgem revisiting the needs case for the project, which may result in the revocation of the cap and floor regime.

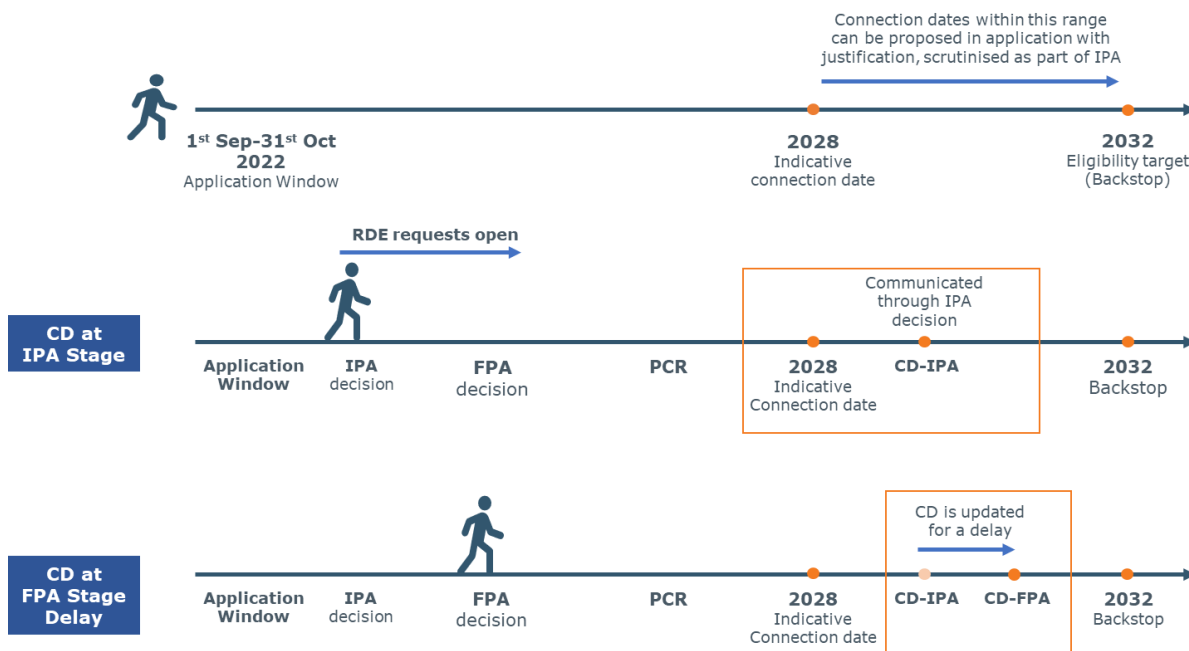
### 3. Our proposals for regime timelines and incentives

- 3.0. This section outlines our preliminary position for the timelines and incentives framework for the third cap and floor window. This information will be subject to formal consultation in due course. We welcome your initial comments - please email your feedback to [Cap.Floor@ofgem.gov.uk](mailto:Cap.Floor@ofgem.gov.uk).

#### **Time limits and treatment of delays**

- 3.1. Experience from previous windows has shown that delays may occur during the development stage of a project, and that these can be significant. We also recognise that the approach used in previous windows of shortening the regime duration because of such delays may adversely impact a project's ability to raise required financing (and/or increase the financing costs of the project).
- 3.2. Our proposed amendments for the third application window aim to ensure a more flexible regime for developers and to better manage adverse consequences where delays outside of their control have arisen. We encourage developers to submit realistic business plans so that consumers are protected from undue delays and to ensure interconnector development meets wider strategic network planning goals.
- 3.3. To maintain the risk-reward balance between consumers and developers, as well as provide certainty and flexibility to developers, we are proposing to consider project delays relative to the connection date (CD) proposed by the developer at the IPA stage, and any delay to the CD requested at the FPA stage. Key dates we will use as parameters to measure delay will be 2028, the Indicative Connection Date, and 2032, the Backstop Date. More detail on these dates is provided below in Figure 2 and Figure 3, and subsequent paragraphs.

**Figure 2: Diagram demonstrating changes to the connection date (see Figure 3 for details on all delay scenarios)**



### Pre-operational Force Majeure (FM)

- 3.0. We are minded to introduce changes to the definition of FM from how it has been applied in previous windows, meaning that only eligible third window projects will be subject to this FM. The pre-operational FM mechanism published on our website on 8 June 2021 will continue to be available to the projects of Window 1 and 2.
- 3.1. We envisage that our proposed Window 3 pre-operational FM mechanism would apply between the IPA and commissioning stages, as in previous windows. Unlike previous windows, we seek to maintain the 25 year regime duration for all projects, therefore no form of delay would result in a shortening of the regime duration as has been the case in previous windows. This includes cases where a FM request is rejected. Instead of shortening the regime duration, we would apply a new Payback Mechanism for Delays in case of undue delays, as outlined in 3.11-3.12 of this section.
- 3.2. We propose that delays that extend beyond the Backstop Date of 2032 (see 3.8), meaning that the CD falls after the Backstop Date, should only be remedied, and thereby avoid the Payback Mechanism for Delays, through a satisfactory FM request. In this circumstance developers will not be able to submit a request for a Reasonable Delay Event, as detailed below. Any delays after this date, unless satisfying FM, would be subject to a Payback Mechanism for Delays and an IPA revisit (see 3.8).

### **Connection date**

- 3.3. The CD is a date, proposed by the developer and approved by us, by which the project will start commercial operations. Ofgem will scrutinise project delays if they occur.
- 3.4. As part of the eligibility criteria, we will only accept applications from projects with a CD of 2032 or earlier. Developers should state their expected CD in their application, with a justification of why this date has been chosen. This justification should be with respect to a “typical” project meeting a baseline connection date of 2028.
- 3.5. We will scrutinise developers’ reasoning for their chosen CD. Considering the project circumstances and characteristics, we will confirm the CD in the IPA decision (CD-IPA) after our assessment of evidence provided by the developer in their submission.
- 3.6. The CD-IPA may be revisited and updated to a CD-FPA in our FPA decision based on the project’s progress against its timelines. A payback mechanism would not apply to an update to the CD at the FPA stage if a developer submits a Reasonable Delay Event application to Ofgem and the submission is approved (see 3.9).
- 3.7. From the FPA decision up to the project’s Connection Date, including construction and PCR stages, we will no longer approve requests to update the CD unless the delay satisfies FM criteria, and projects will not be able to submit a request for a Reasonable Delay Event (see 3.9). We propose that any non-FM related delays at this stage are automatically subject to the Payback Mechanism for Delays instead (see 3.11).

### **Backstop Date**

- 3.8. Throughout project development, we maintain a Backstop Date for all projects to connect before the end of 2032. This will be the date by which the project must connect to guarantee that it retains its cap and floor regime in principle. Any delays after this date, unless satisfying FM, may be subject to a Payback Mechanism for Delays and an IPA revisit. Through setting a Backstop Date, we aim to protect consumers from any change in the fundamental needs case of a project, and to ensure that all projects applying for the third application window can contribute to wider Government interconnection ambitions by achieving commercial operations at the latest by 2032.



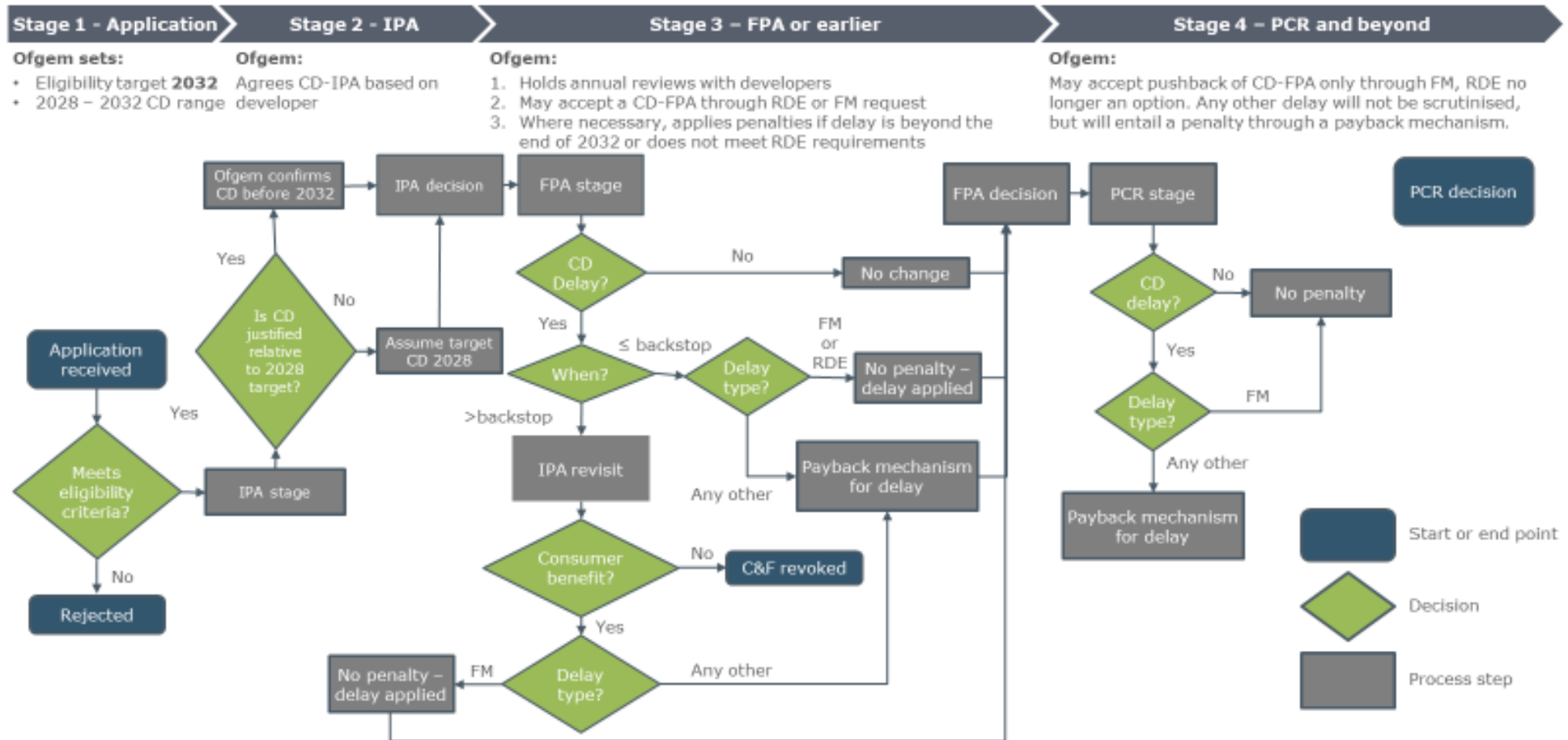
### **Reasonable Delay Event**

- 3.9. We are minded to introduce a Reasonable Delay Event (RDE) mechanism. This would allow for a project to move their connection date later (up to a maximum of the backstop date) without penalties, if evidence can be provided that this delay is reasonable and has been managed diligently. At any point between the IPA decision and the FPA submission, developers may submit an RDE request. We envisage that RDE requests should include an explanation of why the delay has occurred, as well as supporting information and analysis which Ofgem may need to assess the delay. Ofgem will scrutinise this request and approve any delays that we consider are reasonable and have been managed diligently and in accordance with good industry practice. The RDE mechanism differs from FM as the former is constrained by the Backstop Date and contains different qualification criteria. Any delays that fall beyond the backstop date cannot be considered an RDE and would be subject to a needs case revisit and the Payback Mechanism for Delays.
- 3.10. If the CD-FPA, or any subsequent update to the CD, falls before the Backstop Date of 2032 and an RDE application is considered and approved by Ofgem, the delay will be approved without application of any penalties. If, however, the delay date falls before the Backstop Date of 2032 and an RDE application is not approved by Ofgem, we propose that the delay could be subject to the Payback Mechanism for Delays.

### **Payback Mechanism for Delays**

- 3.11. To protect consumers from the material impacts of undue connection delays, we are also minded to introduce a new payback mechanism for delays. This would require developers to repay consumers any floor top-up payments made during the final years of the regime, should there be undue delays not approved by the RDE nor the FM mechanism. Ofgem would set the duration of this liable period equal to the undue delay period.
- 3.12. Any repayment by developers of floor top-ups to consumers under the payback mechanism will be in NPV neutral terms and occur when interconnector revenues exceed the floor level during any individual year falling within the liable period. At the end of the regime, any cumulative outstanding balance of floor payments, made to the project in the final liable period, would be required to be paid back to consumers in NPV neutral terms.

Figure 3: Flowchart demonstrating all delay scenarios



## 4. Next steps

- 4.0. In addition to this guidance document outlining the submission requirements, we will publish additional guidance clarifying specific regime details closer to the opening of the third application window.

### **Consultation on timelines and incentives framework**

- 4.1. We will publish a formal consultation on the positions outlined in Section 3, covering the details of the Reasonable Delay Event, the Payback Mechanism for Delays, and the changes to the Pre-Operational Force Majeure that we intend to apply to the third window.
- 4.2. Following the end of the consultation period, we will publish a document to respond to stakeholder feedback and set out our final positions on the timelines and incentives framework.

### **Needs case assessment framework**

- 4.3. Our needs case assessment framework should enable effective and transparent decision making at the IPA stage on whether specific interconnector projects are in consumers' interests. It will clearly set out detailed methodologies for the assessment of a range of interconnector impacts and include both quantitative and hard-to-monetise elements such as; socioeconomic welfare, network costs, system operability impacts, flexibility impacts, decarbonisation targets, security of supply, environmental impacts and local community impacts. We will include information on the roles and responsibilities of relevant parties like Ofgem, independent consultants, NGESO and project developers. We recognise that applicants will find this information useful ahead of the window opening to develop their own modelling studies.
- 4.4. We recommend developers provide a cost benefit analysis (CBA) and social welfare study, however, note this is optional for the third application window. Submitting a CBA has benefits in providing developers with a chance to present their own analysis within their application, and provides an opportunity to present and justify different approaches and assumptions.

## Targeting approach

- 4.5. Our targeting document will outline our guidance on the NGESO's analysis on network planning needs. This information will be of an advisory nature. For the third application window it will provide an indication of where operability benefits and costs are likely to be greatest. The initial findings of our early engagement with our neighbouring National Regulatory Authorities on future interconnection development will also be communicated in this publication.

## Cap and Floor Financial Models (CFFM1 & CFFM2) and input parameters

- 4.6. The CFFM1 is used to facilitate the determination of the cap and floor levels for a project at the FPA and PCR stages. The CFFM2 is used to facilitate the assessment of actual revenues against cap and floor levels after the cap start date for a project. Both models will be accompanied by handbooks (CFFM1H and CFFM2H), which provide an overview of the aim, structure and functioning of the models.
- 4.7. The CFFM1 and CFFM2 that will apply throughout the third window will be developed at the IPA stage to inform our IPA decision. The regime design document will outline detail on our approach to the calculation of input parameters for CFFM1 and CFFM2, having accounted for stakeholder suggestions from our workshop in Spring 2022. We will include details on the inflation index, IDC rate, and cap rate and floor rate. Below we provide overview of the models' structure and key input parameters.
- 4.8. On the Models' structure, we expect the CFFM1 and CFFM2 for the third window to be broadly similar to the Nemo Link CFFM1 and CFFM2 or the Greenlink CFFM1 and NeuConnect CFFM1 depending on a project's chosen financing strategy. The one exception will be the notional tax elements of the cap and floor levels currently calculated in the CFFM1. The calculation of these tax elements will be turned off in the model to reflect our regime policy for the third window where the actual tax paid by a project is being considered. Actual tax paid will be additional to the cap and floor levels excluding notional tax allowance as currently calculated in the current CFFM1.
- 4.9. On our approach to inflation indexation in the models, we expect this to reflect the broader move from Retail Prices Index (RPI) to Consumer Prices Index including owner occupiers' housing costs (CPIH). We will use the CPIH but keep a close look on issues around liquidity raised by stakeholders. We will keep the option to change to CPI if necessary and justifiable. Our decision aligns with the approach set out in our Sector

Specific Methodology for the RIIO-ED2 Network Price Control published in March 2021<sup>11</sup>.

- 4.10. We expect to align the methodologies, inputs, averaging timeframes and reference date for the three key financing rates in the regime (IDC, Floor rate and Cap rate). We will use the same cost of debt (CoD) methodology to set the Floor rate and the CoD component of the IDC rate, and use the same cost of equity (CoE) methodology (the Capital Asset Pricing Model (CAPM)) to set the Cap rate and the CoE component of the IDC rate.
- 4.11. The methodology for determining the CoE and CoD will align with our current IDC methodology for electricity interconnectors. Key differences such as the length and risk profile of construction versus operations will be reflected in the tenor of indices and equity beta considered for the different periods. For example, the equity beta range for our 2022/23 IDC rate calculation for electricity interconnectors is set at 0.8 to 1.2812 to reflect the risk profile of interconnectors during the construction period and the tenor of the indices to 3-5 years to reflect average construction period of 4 years. We would expect the equity beta for the cap rate to reflect the risk profile during the regime period. The tenor of the indices for the floor rate (currently 10+ years) may be changed to 15+ years to achieve better alignment between average yield to maturity of iBoxx and the 25-year regime length.<sup>13</sup>
- 4.12. Where developers have additional questions, they should contact Richard Harrap at the email address below.

Please send project submissions and any questions to: [Cap.Floor@ofgem.gov.uk](mailto:Cap.Floor@ofgem.gov.uk).

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<sup>11</sup> See Finance Annex [RIIO-ED2 Sector Specific Methodology Decision | Ofgem](#)

<sup>12</sup> [Decision on Interest During Construction \(IDC\) rates to be applied during 2022-23 to offshore transmission projects and electricity interconnectors granted the cap and floor regime. \(ofgem.gov.uk\)](#)

<sup>13</sup> [Review of Cost of Capital Ranges for New Assets for Ofgem's Network Division \(ofgem.gov.uk\)](#)

## Appendix 1- Submission guidance for the eligibility and IPA stages

1.1. Within their application, developers will need to provide the information summarised in Table 1. Where appropriate, further detail on some items is set out below. This section communicates the changes from previous windows so in other respects the approach is as for windows 1 and 2.

### Modelling study

1.2. We recommend developers provide a cost benefit analysis (CBA) and social welfare study, however, note this is optional for the third application window. Submitting a CBA has benefits in providing developers with a chance to present their own analysis within their application, and provides an opportunity to present and justify different approaches. These modelling approaches will be discussed at a modelling workshop in advance of Ofgem's own CBA. If well-justified and after consideration at the modelling workshop, a developer's CBA may be factored into our decision-making at IPA stage. It is important to note that this analysis will be complementary to Ofgem's own CBA used at IPA stage, and will not be used as a replacement. Further detail, including submission requirements for those who would like to submit a CBA as part of their application, will be included in the needs case assessment publication.

### Hard to monetise costs

1.3. Developers should submit details of the project's hard-to-monetise impacts to input into Ofgem's CBA, covering: environmental, landscape, noise and local community impacts. This should be submitted in a qualitative narrative format. Further detail will be provided in our upcoming Needs Case Assessment publication.

### Justification of the chosen connection location, capacity and design

1.4. Developers should submit justification for the overall design of their project, including:

- connection location,
- cable route,
- interconnector capacity, and
- technical design (such as cable type and choice of converter technology).

1.5. This should also describe other options considered and justification for rejecting these options, including the appraisal methodology used by developers in order to reach their decision.

1.6. Developer submissions should be supported where relevant by evidence of discussions with transmission system operators regarding connections at each end of the interconnector, and information on how these discussions have informed developers' decision-making. This should include projected costs associated with the onshore networks, such as reinforcement costs and impacts on constraint management.

1.7. If developers have a Connection and Infrastructure Options Note (CION) in place they must include this in their IPA submission. The CION will give us the necessary information to understand the impact of the project on the GB transmission system. Where developers do not include a CION in their IPA submission, they must provide this to us as soon as possible thereafter.

### **Project plans**

1.8. We require developers to submit detailed project plans including key milestones from early-stage development through to operation. As a minimum this should include:

- Consenting, including detail on any engagement undertaken to date,
- Procurement,
- Plans for regulatory approval in the connecting country
- Financing and investment, and
- Construction.

### **System Operability**

1.9. For the third window, the ESO will provide information that will be used to help inform our IPA stage. This will include a submission on the general system operation impact of interconnectors, supported by quantified and project-specific analysis where this is available. The ESO will also consider the flexibility balancing benefits of interconnectors.

1.10. Where a developer feels that a given project provides significant system operation benefits, we would welcome this analysis (either as part of interconnector modelling or separately) in its submission along with detail of any alignment with Grid Code GC0137.

### **Plans for regulatory approval in the connecting country**

1.11. Developers should submit written evidence on the discussions they have had to date with the relevant NRA and/or government body in the connecting market on their specific project, and a description of how developers expect our cap and floor regime to interact with the regulatory approach at the other end of the interconnector (if this differs).

1.12. The submission should also include, where applicable, engagement with European processes such as the Ten Year Network Development Plan (TYNDP) process.

1.13. The evidence of these discussions should demonstrate that the project does not face significant legal or regulatory obstacles to its development in the relevant country and, if there are any, that the connecting NRA or government are willing to engage on them with the developer and envisage the possibility of overcoming them. Where no regulatory route currently exists, this evidence should confirm that the connecting state NRA and/or any relevant connecting state government body do not object to exploring introducing one.

1.14. More broadly, we expect this written evidence to indicate that the developer's views on regulatory steps and milestones are aligned with the views of the relevant NRA and government in the connecting country, and that there is broad agreement between the developer and the connecting NRA and government on the key regulatory hurdles, project interdependencies, and timescales.

### **Plans for grid connection in the connecting country**

1.15. Developers should submit a detailed description of how they expect to be granted access to the grid in the connecting country supported by written evidence of positive discussions with the connecting transmission system operator (TSO) on their specific project. This evidence could take various forms; for example, developers may wish to submit a connection agreement with the non-GB TSO or provide evidence that confirms the TSO in the connecting country is considering the project as part of its national network development plans. Essentially, we expect that this evidence demonstrates the project does not face substantial obstacles to its development, that the network planning process is fully understood, and that there is broad agreement between the developer and the TSO in the connecting country on key milestones, timescales, and potential risks.



## **Financing and investment plans**

1.16. We require developers to provide a description of the plans for financing the project from early-stage development through to operation, including when projects envisage making their final investment decision.

1.17. Submissions are expected to include information demonstrating the project and its main sponsors have a solid and transparent financial structure, a credible financing strategy, and the expertise to raise the capital needed to develop the project. Therefore, submissions should include, amongst other relevant evidence, information on the financial structure of the project and its sponsors, the intended financial flow of the project, letters of financial support from sponsors, letters of interest from banks, track record of raising finance for similar projects, and track record of financial performance, where relevant.

## **Other Provisions**

1.18. We note that we do not think it is appropriate for developers to apply for a cap and floor regime and an exemption in tandem (within GB jurisdiction) nor to combine any of them with an application to the MPI Pilot regulatory framework. We expect developers to choose whether the cap and floor regime or the exemption route, or the MPI Pilot regulatory framework better suit the needs of their projects within GB jurisdiction.

1.19. Projects applying for a cap and floor regime must comply with all the relevant legal and regulatory requirements of the UK, the connecting states, and relevant EU law, including existing and future European network codes.

**Table 1: Summary of submission material**

<b>Requirement</b>	<b>Submission material</b>	
<b>Eligibility criteria</b>	Interconnector licence (granted or application made).	Proof of licence or current status of application made to Ofgem.
	A GB connection agreement for connection prior to the end of 2032.	Proof of connection agreement with the NGESO.
	Submission information for IPA stage complete.	All information listed for IPA stage below is submitted and complete. We will perform a check to ensure that all information for the IPA stage has been provided.
<b>Details of IPA submission material</b>	Project overview.	General overview of the project, including ownership structure and confirmation of licence and connection agreement.
	Modelling study (recommended).	Developers are encouraged to submit a supporting CBA analysis within their application to complement Ofgem’s own IPA assessment. Further detail will be provided in an upcoming publication.
	Qualitative assessment of risk and dependencies.	Description of relevant risks, uncertainties and dependencies.
	Indicative costs.	A completed version of the high-level template (published alongside this guidance document) with a supporting explanation of how the costs have been estimated.
	Hard to monetise costs	Further details of the Environmental, Landscape, Noise and Local Community impacts should be provided. Further submission detail will be provided in an upcoming Needs Case Assessment publication.
	Justification of connection location, cable route, capacity and technical design.	<p>Justification for the overall design of the project, including justification and reference to other options. This should include TSO discussions to date and associated onshore impacts.</p> <p>If developers have a Connection and Infrastructure Options Note (CION) in place they must include this in their IPA submission. Where developers do not include a CION in their IPA submission, they must provide this to us as soon as possible thereafter.</p>

	System Operability.	Detail of any alignment with Grid Code GC0137
	Project plans.	Detailed project plans including milestones from early-stage development to operation. Project plans should outline either an ability to meet the indicative connection date (2028) or a justification for amending the connection date, and should also include milestones for consenting, procurement, financing and investment decisions, construction, and any other activities the developer deems appropriate. It should also include, where applicable, evidence of engagement with European processes such as the TYNDP process.
	Plans for grid connection in the connecting country.	Description of how the developer expects to be granted access to the grid in the connecting country supported by evidence of positive consideration of the project by the connecting TSO.
	Plans for obtaining regulatory approval in the connecting country.	Detailed description of how the developer expects to be granted regulatory approval in the connecting country supported by evidence of positive engagement with the connecting country NRA or TSO and/or inclusion of the project in the national transmission plans of the connecting country. The developer would provide written evidence of early engagement with the connecting country, proving that there are no obstacles or risks that could substantially delay the project's development plans.
	Financing plans.	Description of plans for financing the project, including the provision of robust supporting evidence. This evidence should demonstrate the project and its main sponsors have a solid and transparent financial structure, a credible financing strategy, and the expertise to raise the capital needed to develop the project.
	Supply chain plans.	Description of supply chain plans for the project with robust supporting evidence of engagement to date with key suppliers over the procurement and construction periods expected for the project.

	Indication of FPA submission.	Indication of planned timing of FPA submission, including confirmation as to whether any aspects of the IPA are likely to change by the point of FPA submission.
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