

# Consultation



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## Post Construction Review of the IFA2 interconnector to France

Subject	Details
<b>Publication date:</b>	25 March 2022
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We are consulting on our minded-to position on the Post Construction Review of the IFA2 interconnector project. We are also conducting a statutory consultation on consequential changes to the special conditions in NGIFA2's licence. We would welcome responses from a range of stakeholders and the public.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations). If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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## Executive summary

The IFA2 project is a 1GW electricity interconnector between Lee-on-Solent in Hampshire, GB and Merville-Franceville-Plage in Normandy, France. The project is being jointly developed by National Grid IFA2 Limited (NGIFA2) and by RTE (Réseau de Transport d'Electricité), the French transmission system operator (TSO). IFA2 entered commercial operations on 22 January 2021. Our cap and floor regime applies to National Grid's 50% share in the project.<sup>1</sup>

We assessed the needs case for the IFA2 project at our Initial Project Assessment (IPA) stage and decided in July 2015 to grant the project a cap and floor regime in principle. This was based on our assessment that the project is likely to significantly benefit GB consumers and GB as a whole. In July 2018 we published our decision on NGIFA2's Final Project Assessment (FPA) and set the preliminary cap and floor levels. The final cap and floor levels are then set following our determination, at the Post Construction Review (PCR) stage, of the values of the Post Construction Adjustment (PCA) terms. These terms adjust the provisional cap and floor levels to take account of our final assessment of the project's costs.

## Scope of this consultation

This document sets out our minded-to position on IFA2's PCR, in particular our views on the proposed values for the PCA terms submitted by NGIFA2 and proposed final cap and floor levels for the project.

Alongside our consultation on the IFA2 PCR, we are also conducting a statutory consultation on consequential changes to the special conditions in NGIFA2's licence. Furthermore, we are seeking views on the IFA2 Cap and Floor Financial Model 1 (IFA2CFFM1) and handbook (CFFM1H).

## Overview of our assessment

The cap and the floor levels are set based on a building blocks approach of development costs, capital costs, operating and maintenance costs, replacement costs, decommissioning costs, tax and allowed return. **The preliminary cap and floor levels for NGIFA2, as specified in its licence, are £50.7m and £27.6m each year (2016/17 prices).**

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<sup>1</sup> National Grid IFA2 Limited (NGIFA2) is the licenced entity on the GB side of the interconnector. NGIFA2 is a part of National Grid's interconnector business, National Grid Interconnector Holdings (NGIH).

In February 2021, NGIFA2 submitted its proposed values for the PCA terms for determination, together with supporting project cost information (the PCR Submission). We received updated information in June 2021 under the annual reporting requirements in the Cap and Floor Regulatory Instruction and Guidance (Cap and Floor RIGS). Following this, we received a second cost update in October 2021. **NGIFA2 proposed upward adjustments to the preliminary cap and floor levels of £10.2m and £10.5m (2016/17) respectively.** These upwards adjustments are mainly based on the project's updated costs for operational expenditure.

Based on our assessment, we are minded to set the:

- combined capital expenditure (capex) and development expenditure (devex) value at £335.7m, a decrease of £2.9m from NGIFA2's PCR submission; and
- the operating expenditure (opex) value at £536.3m, a reduction of £2.9m from NGIFA2's PCR submission.

Special licence condition 8 of NGIFA2's licence provides that we will review the licensee's proposed values for the PCA terms, at the PCR stage. Following this, we will determine whether the proposed values are acceptable and, if not, specify the values of the PCA terms.

Accordingly, we are minded to determine that the proposed PCA values submitted by NGIFA2 **should be adjusted downwards and determined as £9.7m and £10.2m.**

Our proposed PCA values, after the downwards adjustment, generate a **final cap level of £60.4m and a final floor level of £37.8m in 2016/17 prices.**

## Next Steps

Following the close of the respective consultations and subject to our consideration of responses, we expect to make our final decisions on each of the elements outlined above by:

- issuing a direction under special condition 8 on NGIFA2's licence, specifying the determined PCA values and confirming the final cap and floor levels for the project;
- issuing licence modification notices under section 11A of the Electricity Act 1989 to modify the special licence conditions in NGIFA2's licence.

Subject to consideration of responses, **we anticipate making these decisions in June 2022.**

## 1. Introduction

### IFA2 project overview

1.1. The IFA2 project is a 240km, 1GW electricity interconnector between GB and France. At the GB side the cable landfall is at Lee-on-Solent, followed by 2 km of onshore cable to Daedalus converter station. This is followed by approximately 10 km of double circuit AC cable, including 5 km of offshore cable, which connects to the grid at Chilling substation. The French end of the HVDC cable lands at Merville-Franceville-Plage, followed by 23 km of onshore HVDC cable to a converter and substation in Tourbe.

1.2. IFA2 is shown alongside other proposed interconnector projects in Figure 1 below.

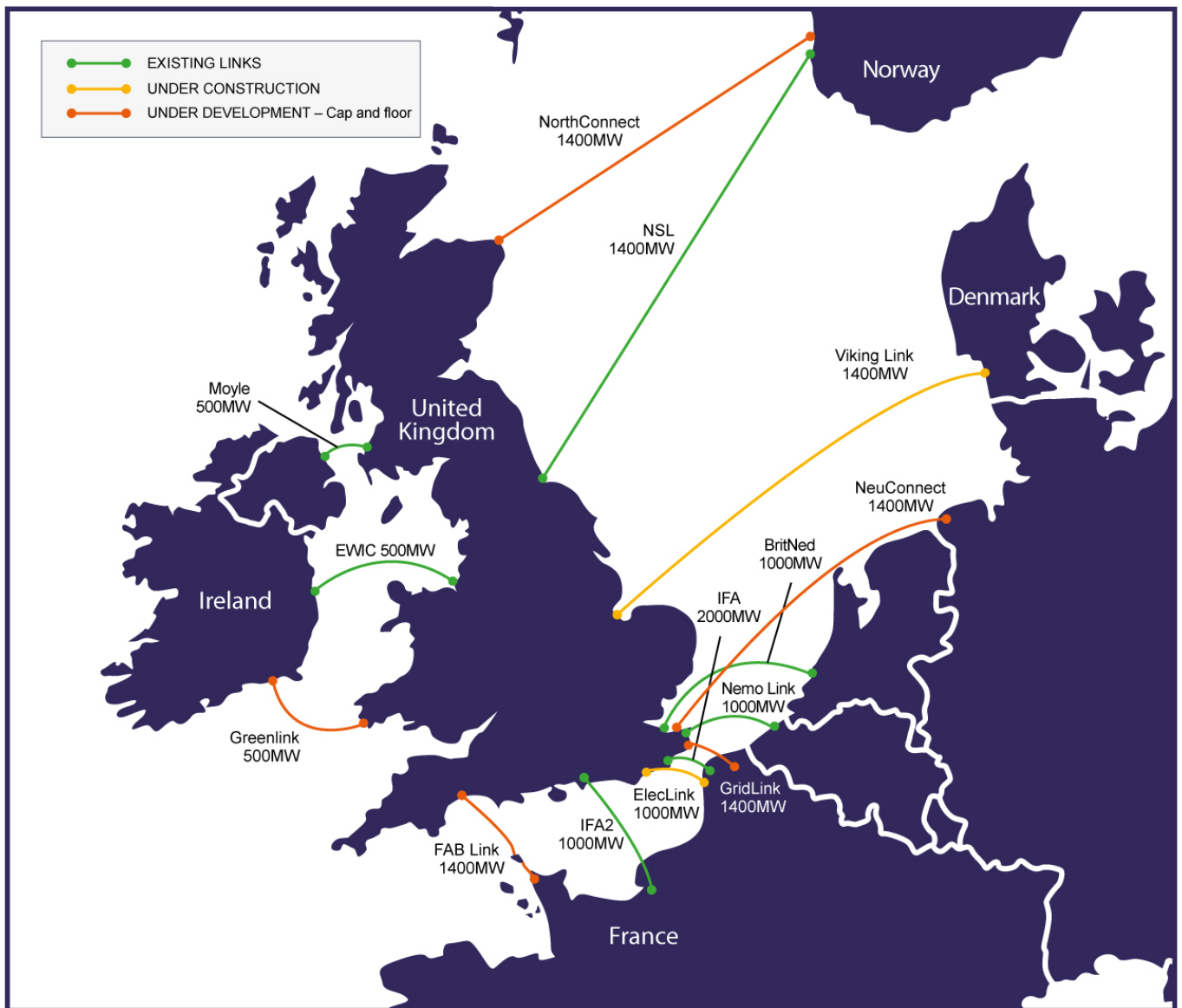


Figure 1 - Map of existing and proposed GB electricity interconnectors

1.3. The IFA2 interconnector started operating commercially on 22 January 2021 and is the second operational project to be regulated under our cap and floor regime, after Nemo Link.

1.4. The IFA2 project is being jointly developed by National Grid Interconnector Holdings (NGIH) and RTE, the French TSO. Our cap and floor regime applies to National Grid's 50% share in the IFA2 project. RTE's share in the project is regulated by the French regulator, CRE. This is the same approach that was adopted for the NSL interconnector to Norway and the Viking Link interconnector to Denmark.

## **Our cap and floor regime**

1.5. The cap and floor regime is the regulated route for interconnector development in GB. It sets a minimum and maximum return that interconnector developers can earn. We developed the cap and floor regulatory model for Nemo Link jointly with the Belgian regulator, CREG. We then extended the cap and floor regime to other interconnectors in August 2014.<sup>2</sup>

1.6. There are three main stages to our cap and floor regime – the Initial and Final Project Assessments (IPA and FPA), followed by the Post Construction Review (PCR). These main stages are supported by annual reporting, which takes place between the FPA and PCR stages. At the FPA stage we confirm the grant of a cap and floor regime and set the provisional cap and floor levels. These levels are then confirmed at the PCR stage. This is shown in Figure 2 below.

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<sup>2</sup> We extended the cap and floor regime to near-term projects in August 2014, and then confirmed this as our enduring approach to interconnector regulation in March 2015 as part of our Integrated Transmission Planning and Regulation project conclusions.

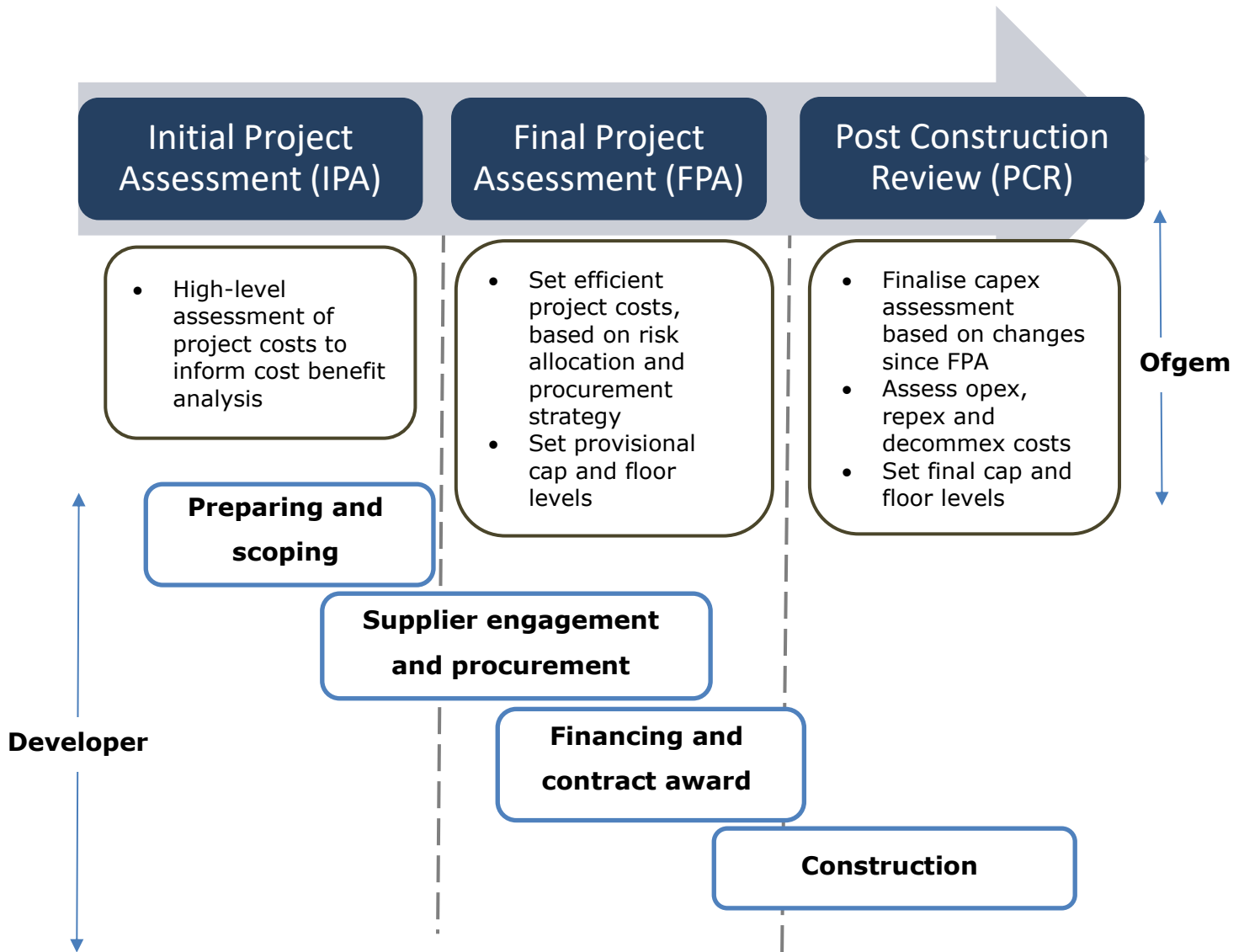


Figure 1 - Cap and floor assessment framework

- The **Initial Project Assessment (IPA)** stage is when we assess the needs case for new interconnector projects. This is predominately an economic assessment, taking into account the total costs and benefits of new interconnectors and assessing the likely impacts on consumers.
- At the **Final Project Assessment (FPA)** stage we confirm the grant of a cap and floor regime and set the provisional cap and floor levels. We assess the economic and efficient costs associated with developing, constructing, operating, maintaining and decommissioning of the licensee’s interconnector and risk allowances. We also set the project’s financial parameters, assess the technical design of the project, develop a project-specific cap and floor financial model (CFFM), and set the values for incentives.



- The cap and floor levels are then confirmed at the **Post Construction Review (PCR)** stage, when we revisit aspects of our cost assessment that were not fixed at the FPA stage and assess the efficiency of certain costs incurred during construction. We conduct a review of the final capital costs (capex) and consider the efficiency of the interconnector’s operational costs (opex). We also re-examine any information or aspects of the initial submission that have changed significantly.

1.7. We assessed the needs case for IFA2 at the IPA stage and decided in July 2015 to grant the project a cap and floor regime in principle.<sup>3</sup> This was based on our assessment that the project is likely to significantly benefit GB consumers and GB as a whole.

1.8. In June 2020, we made licence changes to give practical effect to NGIFA2’s Final Project Assessment Decision.<sup>4</sup> The licence specified preliminary cap and floor levels of £50.7m and £27.57m (in 2016/17 prices). The licence provides for the final cap and floor levels for NGIFA2 to be set following our determination of the Post Construction Adjustment (PCA) terms at the PCR stage.<sup>5</sup>

1.9. The determined PCA terms adjust the preliminary cap and floor levels (whether upwards or downwards) to account for the difference between:

- (a) our estimate, assumed in the preliminary cap and floor levels for NGIFA2, of the costs associated with developing, constructing, operating, maintaining and decommissioning NGIFA2; and
- (b) our assessment of these costs at the PCR stage (when the majority of the development and construction costs have been incurred).

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<sup>3</sup> <https://www.ofgem.gov.uk/publications/decision-initial-project-assessment-fab-link-ifa2-and-viking-link-interconnectors>

<sup>4</sup> [Statutory consultation: Decision on changes to the electricity interconnector licence held by National Grid IFA2 Limited \(NGIFA2\) | Ofgem](#)

<sup>5</sup> Relevant provisions are included in Special Condition 8: Process for determining the value of the Post Construction Adjustment terms and Special Condition 2: Cap Level and Floor Level. The PCA terms consist of two terms – the Post Construction Adjustment At Cap term (PCAC) and the Post Construction Adjustment At Floor term (PCAF).

1.10. The determined PCA values are used to calculate the final cap and floor levels for NGIFA2. The final cap and floor levels then remain fixed for the duration of NGIFA2's cap and floor regime.<sup>6</sup>

1.11. In February 2021, we received NGIFA2's PCR submission (the PCR submission) which included NGIFA2's proposed values for the PCA terms. Section 2 below sets out details of our assessment of the PCR submission together with our minded-to position on the proposed values for the PCA terms.

## What are we consulting on?

1.12. We are consulting on our minded-to position on the PCR of the NGIFA2 interconnector project. In particular, we are seeking views on our proposed values for the PCA terms.

1.13. Alongside our consultation on the IFA2 PCR, we are also:

- Conducting a statutory consultation on:
  - consequential changes to the special conditions of NGIFA2's licence to reflect changes to governance arrangements for the CFFM. These changes are described in Appendix 3, published alongside this consultation document.
- seeking views on the IFA2 CFFM1 and associated handbook, published alongside this consultation document in Appendix 4.

## Context and related publications

1.14. The remainder of this document is structured as follows:

### Section 2: Our Post Construction Review (PCR) cost assessment

1.15. This section provides:

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<sup>6</sup> The regime allows for a discretionary revision of the final cap and floor levels after no less than 10 years from the start of the regime to re-assess and benchmark the opex forecast submitted at the PCR stage and, if required, for multiple revisions to re-assess the decommissioning costs forecast submitted at the PCR stage.

- a summary of NGIFA2's previous cost submissions;
- a summary of NGIFA2's annual reporting under the Cap and Floor RIGS;
- a description of the PCR cost assessment and process and its scope; and
- a summary of our PCR cost assessment of NGIFA2 and our proposed cap and floor levels.

### **Section 3: Proposed licence modifications and updates to NGIFA2's financial parameters**

1.16. This section sets out:

- our proposed modifications to the special conditions in NGIFA2's electricity interconnector licence to reflect a change in governance arrangements relating to the CFFM, as described in Appendix 3 published alongside this document.
- our proposed modifications to NGIFA2's financial parameters, specifically the corporation tax rate.

## **Related publications**

### [Cap and Floor Regime Handbook](#)

Published: September 2021

### [Decision on the Final Project Assessment of the Viking Link interconnector to Denmark](#)

Published: September 2020

### [Statutory consultation: Decision on changes to the electricity interconnector licence held by National Grid IFA2 Limited \(NGIFA2\)](#)

Published: June 2020

### [Post Construction Review of the Nemo Link interconnector to Belgium](#)

Published: September 2019

[Final Project Assessment of the IFA2 interconnector to France](#)

Published: July 2018

[Cap and Floor regime: Initial Project Assessment for the FAB Link, IFA2, Viking Link and Greenlink interconnectors](#)

Published: March 2015

[Decision on the Final Project Assessment of the NSL interconnector to Norway](#)

Published: July 2017

[Decision to roll out a cap and floor regime to near-term electricity interconnectors](#)

Published: August 2014

[The regulation of future electricity interconnection: Proposal to roll out a cap and floor regime to near-term projects](#)

Published: May 2014

## **Consultation stages**

1.17. Our consultation on NGIFA2's PCR and the other elements outlined above will close on 23 April 2022. Following the close of this consultation and subject to consideration of responses, we expect to make our final decisions on each of the elements as follows:

- Determination of the PCA values for NGIFA2 – by issuing a direction pursuant to paragraph 15 of special condition 8 on NGIFA2's licence, specifying the determined PCA values;
- Modification to the NGIFA2 special conditions – by issuing licence modification notices under section 11A of the Electricity Act 1989.

1.18. We anticipate making these decisions in June 2022.

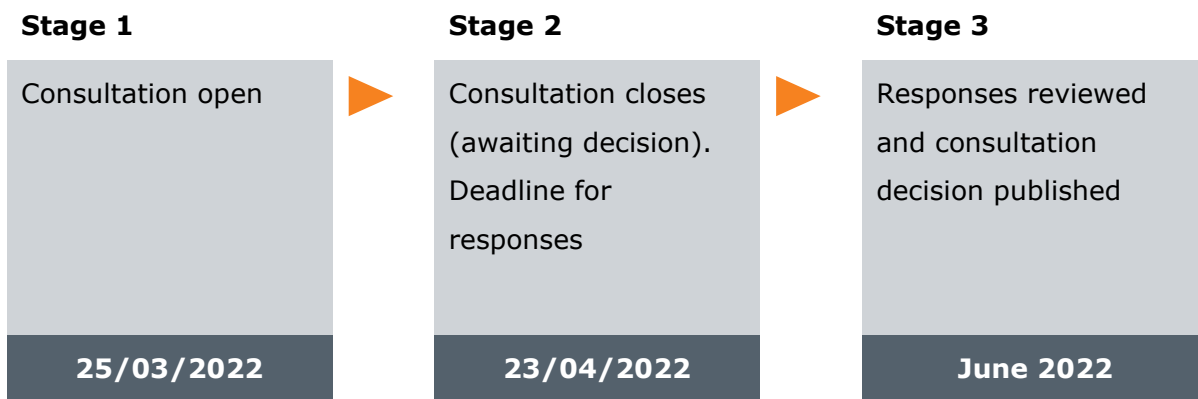


Figure 2: Consultation stages

## How to respond

- 1.19. We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.
- 1.20. We've asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.
- 1.21. We will publish non-confidential responses on our website at [www.ofgem.gov.uk/consultations](http://www.ofgem.gov.uk/consultations).

## Your response, data and confidentiality

- 1.22. You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.
- 1.23. If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.

- 1.24. If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 4.
- 1.25. If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

## General feedback

- 1.26. We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:
1. Do you have any comments about the overall process of this consultation?
  2. Do you have any comments about its tone and content?
  3. Was it easy to read and understand? Or could it have been better written?
  4. Were its conclusions balanced?
  5. Did it make reasoned recommendations for improvement?
  6. Any further comments?

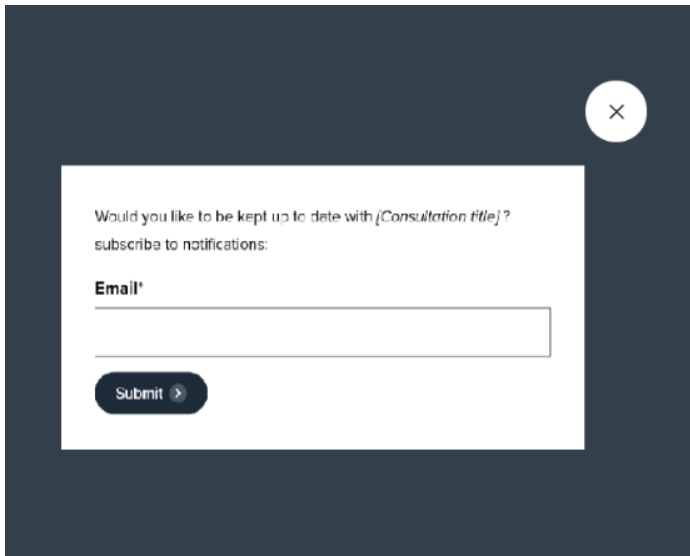
Please send any general feedback comments to [stakeholders@ofgem.gov.uk](mailto:stakeholders@ofgem.gov.uk)

## How to track the progress of the consultation

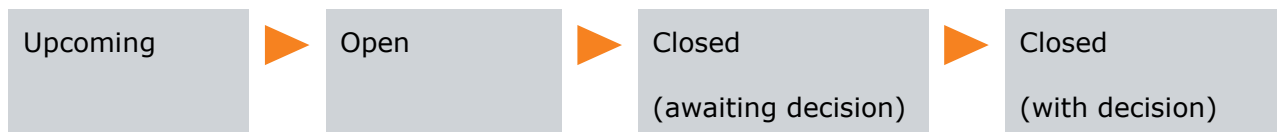
You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website. [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations).

Notify me +

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Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status. Our consultation stages are:



## 2. Our Post Construction Review (PCR) cost assessment

### Section summary

This section provides an overview of the PCR cost assessment that we have undertaken, detailing our minded-to position on the project's costs.

### Question 1: Do you agree with our proposed cost allowances?

### Previous cost assessments

- 2.1. In 2018, NGIFA2 submitted provisional costs in order for us to set the preliminary cap and floor levels at the start of the project's construction. We conducted a cost assessment and set the preliminary values in our FPA decision, published in July 2018.<sup>7</sup> **All costs discussed in this section are reported as real 2016/17 prices.** Costs submitted and the cap and floor levels are set in pound sterling (GBP).
- 2.2. Our 2018 assessment involved a detailed review of all aspects of the submitted costs, with a particular focus on the capital costs related to the construction of the project. We set out our view of the efficient costs for NGIFA2, resulting in total provisional project costs (construction and operating costs) being set at **£814m** compared to the submitted cost of **£833m**. This was used to define the preliminary cap and floor levels, which were set, respectively, at £50.7m and £27.6m per year (2016/17 prices).

### Annual reporting

- 2.3. Following changes to NGIFA2's licence in June 2020<sup>8</sup> and prior to the PCR, NGIFA2 was required to submit annual reports during the construction phase, via the Cap and Floor

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<sup>7</sup> <https://www.ofgem.gov.uk/publications/final-project-assessment-ifa2-interconnector-france>

<sup>8</sup> <https://www.ofgem.gov.uk/publications/statutory-consultation-decision-changes-electricity-interconnector-licence-held-national-grid-ifa2-limited-ngifa2>



RIGs. These submissions included updates on construction progress, cost variations from those set in the FPA decision, and any other relevant information.

2.4. The Cap and Floor RIGs is the primary means by which we ensure that interconnector licensees collect and provide the information we require to monitor their performance during construction. There is no obligation for us to adjust the cost allowances or cap and floor levels as a result of the RIGs, but the process is nonetheless valuable for us when it comes to assist our assessment at the PCR.

2.5. NGIFA2 made four formal RIGs submissions. The RIGs submissions consist of a narrative update of the main elements of the project, the status of construction and of the latest capex costs, and detailed explanations of specific line items where there has been a change in cost.

2.6. In addition to the narrative, each submission includes an updated version of the project's cost assessment template, breaking down the project costs into all major components and highlighting where costs have deviated from previous submissions. Our review takes into account the submission materials along with any additional evidence we might require.

## **Description of the PCR process**

2.7. The PCR is the process for determining the values of the Post Construction Adjustment at the Cap (PCAC) and at Floor (PCAF) terms as set out in special condition 8 of NGIFA2's licence.

2.8. The PCR process is initiated by the licensee, who submits a request for the proposed value for the PCA terms with supporting cost information when between 85% and 95% of the development and capital expenditure, excluding interest during construction,<sup>9</sup> has been committed to the development and the construction of the interconnector. The PCR process may also be initiated earlier or later than this, after agreement in writing with us.<sup>10</sup>

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<sup>9</sup> Interest during construction (IDC) is a return that developers will earn on economically and efficiently incurred spend during the development and construction phases of the project.

<sup>10</sup> Special Condition 8, paragraph 5 of NGIFA2's licence.

2.9. The values of the PCA terms for NGIFA2 are determined by the Authority (Ofgem), and are expressed in real 2016/17 pound sterling prices.<sup>11</sup> The PCA terms are equal to zero until their determination by the Authority. Once determined, they remain fixed from the date on which they take effect for the remainder of the Regime Duration.<sup>12</sup>

2.10. Special condition 8 of the licence defines the PCA terms as the adjustment (whether upwards or downwards) of the cap level and the floor level proposed by the licensee as a consequence of the difference between:

- a) the Authority's estimate, assumed in the preliminary cap and floor level, of the costs associated with developing, constructing, operating, maintaining and decommissioning of the NGIFA2 interconnector; and
- b) the Authority's assessment, at the PCR stage, of the economic and efficient costs associated with developing, constructing, operating, maintaining and decommissioning of the NGIFA2 interconnector.<sup>13</sup>

2.11. After confirmation of the receipt of all the necessary information to define the PCA terms, we have to determine, whether we consider the proposed values to be acceptable; or to specify alternative values for these terms within 12 months.<sup>14</sup>

2.12. Once determined, we specify the values of the PCAC and PCAF terms in a direction. The determined PCAC and PCAF values take effect from the Regime Start Date of 1 January 2021.<sup>15</sup>

2.13. The PCAC and PCAF terms feed into the formula used to calculate the final cap and floor levels for NGIFA2, as described in special condition 2, paragraph 4 of NGIFA2's licence.

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<sup>11</sup> Cost figures have been deflated to 2016/17 prices.

<sup>12</sup> Special Condition 2, paragraph 13(d) of NGIFA2's licence.

<sup>13</sup> Special Condition 8, paragraph 2 of NGIFA2's licence.

<sup>14</sup> Special Condition 8, paragraph 12 of NGIFA2's licence.

<sup>15</sup> Special Condition 8, paragraph 15 of NGIFA2's licence.

## Scope of the PCR for NGIFA2

2.14. NGIFA2 made its PCR submission in February 2021, with a further update provided in October 2021. Construction costs were submitted in nominal terms while forecasted costs during operations were submitted in real terms (2019/210 prices); both were denominated in pound sterling. In order to set cap and floor levels in pound sterling and real terms (2016/17 prices), we had to convert the base year of both sets of costs. More detail on the approach used to carry out these conversions is provided in Appendix 1.

2.15. Since the cap and floor levels are largely based on NGIFA2's costs, we assess these costs to ensure that consumers do not underwrite inefficient costs for the project. The key components that we assessed during this PCR were the tender process and the final project costs.

2.16. In reviewing the tender process, we assessed the level of competitiveness by considering the following aspects:

- The pricing differentials between the bidders;
- The effect of the proposed, and final, allocation of risks on the pricing; and
- The process and criteria in place to exclude tenderers

2.17. The PCR capex review consisted of:

- reviewing the engineering, procurement and construction (EPC) contracts;
- reviewing our minded to positions on the cost variations that we considered during the previous RIGs;
- reviewing the cost variations that occurred during the final year of construction; and
- reviewing any remaining risk costs included within the PCR submission.

2.18. The PCR operational costs review covered the following key elements:

- Opex costs (costs associated with managing, operating and maintaining the interconnector, including resources and expenses, business services, trading

systems and agreements, planned and unplanned maintenance, business rates and insurance);

- Repex costs (costs associated with the replacement of assets to ensure continued functionality of the interconnector over the 25-year period); and
- Decommissioning allowance (funds set aside for decommissioning the interconnector's assets at the end of its operational life).

2.19. In accordance with our FPA decision and NGIFA2's licence, we have not assessed market related costs<sup>16</sup> at this stage. Market related costs are treated as partial pass-through costs and, as such, these costs will be netted off NGIFA2's gross congestion revenues on an annual basis. Net congestion revenues will then be assessed against the cap and floor levels every five years. Where net congestion revenue is between the cap and floor levels, market related costs are borne by NGIFA2. If, however, net congestion revenues are below the floor, then NGIFA2 would be eligible for a floor payment.

2.20. We set an allowance for decommissioning costs<sup>17</sup> as part of our FPA decision.<sup>18</sup> NGIFA2's licence provides for adjustments to the cap and floor levels (whether upwards or downwards) in the event that a change in legislative requirements results in additional or reduced decommissioning costs agreed by the Authority. This is to reflect the fact that legislative requirements relating to decommissioning could change before the end of NGIFA2's cap and floor regime, and could lead to additional or reduced decommissioning costs which NGIFA2 would not have foreseen.

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<sup>16</sup> Market related costs include firmness costs (the cost of compensating parties who have purchased interconnector capacity that cannot be provided), error accounting costs and trip contract costs.

<sup>17</sup> Decommissioning costs are those relating to sufficiently removing (or taking other relevant actions in relation to) assets at the end of the operational life.

<sup>18</sup> The allowance set in the FPA decision was £10.3m.

## Summary of our PCR cost assessment

2.21. In its PCR submission, NGIFA2 proposed upward adjustments to the preliminary cap and floor levels of £10.2m and £10.5m (2016/17), respectively. This upward adjustment is based on updated costs, in particular for Opex, Repex and Decommex.

2.22. After our cost assessment, we are minded to set the combined capital expenditure (capex) and development expenditure (devex) value at £335.7m, a decrease of £2.9m from NGIFA2’s PCR submission.

2.23. We have also considered NGIFA2’s operational costs over its 25-year regulatory lifetime. We are minded to set the operational cost value at £536.3m, a reduction of £2.9m from NGIFA2’s PCR submission.

2.24. Our initial view at this stage suggests that the PCA values submitted by NGIFA2 should be adjusted downwards by £0.46m and £0.27m respectively.

2.25. **Table 1** below shows a summary of these costs:

**Table 1 - Summary of project costs<sup>19</sup>(£m, 2016/17 prices)**

Item		2018 IFA2 submission	2018 Ofgem position	IFA2 PCR submission	Our provisional PCR position
Devex		10.3	10.3	10.3	10.3
Capex	Firm costs	290.4	284.9	328.2 <sup>20</sup>	325.3
	Risks	42.8	29.0	0	0
Opex <sup>21</sup>		462.3	462.3	471.2	470.3
Repex		13.5	13.5	41.9	39.9
Decommex		13.9	13.9	26.2	26.2
Total		<b>833.2</b>	<b>813.9</b>	<b>877.8</b>	<b>872.0</b>

<sup>19</sup> For all tables in this document, due to rounding the figures in the table may not add up precisely to the totals indicated.

<sup>20</sup> The submitted value includes all incurred capex costs, inclusive of disallowances at FPA. Delayed Start Up Insurance costs and Commissioning Power costs have not been included in our provisional PCR position in line with our treatment of these costs in the FPA.

<sup>21</sup> Includes market related costs.

2.26. **Table 2** below sets out the preliminary cap and floor levels, the adjustments to these levels proposed by NGIFA2, our provisional determination of these adjustments and the corresponding impacts on the final cap and floor levels. Our cost analysis is presented in more detail in the following sections.

*Table 2 - Summary of proposed cap and floor levels (£m, 2016/17 prices)*

	Cap	Floor
NGIFA2’s preliminary cap and floor levels	50.7	27.6
NGIFA2’s proposed PCA values	+10.2	+10.5
Final cap and floor levels using NGIFA2’s proposed PCA values	60.9	38.0
Our provisional determination of the PCA values	+9.7	+10.2
Final cap and floor levels using our provisionally determined PCA value	60.4	37.8

### **Tender process**

2.27. In order to secure the most efficient EPC contracts, the developer engaged with the market by running a tender process with three different lot options:

- Lot 1: HVDC converter stations;
- Lot 2: HVDC and HVAC land and submarine cable supply and installation; and
- Lot 3: HVDC converter stations, HVDC and HVAC submarine and land cables and cable installation.

2.28. These tender processes were run in line with relevant EU legislation and were published on the OJEU.<sup>22</sup>

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<sup>22</sup> OJEU stands for the Official Journal of the European Union. This is the publication in which all public sector tenders above a certain financial threshold (as specified in EU legislation) must be advertised.

2.29. After evaluating all of the proposed solutions, the developer decided to offer two separate contracts, one for the converter stations (lot 1) and one for the cable supply and installation (lot 2).

2.30. ABB won the tender for the converter stations and were awarded the lump-sum contract to supply and construct them. Prysmian won the EPC lump sum contract to supply and install the land and submarine cables. Both contractors won the tenders on a combination of commercial and technical grounds.

2.31. Our review of the tender documents indicated that the tender process was run competitively. In addition, since the developer adopted a procurement process in line with EU legislation, we are satisfied that IFA2 managed and delivered the tender processes in a transparent and efficient manner.

### Proposed final capex costs

2.32. The value of the capital expenditure (capex) submitted by NGIFA2 at the FPA stage was £333.2m (including risks) whereas the submitted PCR value was £328.2m, a decrease of £5.0m. We are minded to make reductions totalling £2.9m to this PCR value, detailed in **Table 3** below.

**Table 3 - Proposed capex cost adjustments (£m, 2016/17 prices)**

Cost	Reasons for adjustment	PCR submitted cost	Proposed adjustment	Minded-to adjusted cost
Covid 19 – Converter Station Mitigation	The decision to provide food for all staff onsite was considered to have gone beyond what would be considered economic and efficient.	£0.4	£0.2	£0.2

DSU <sup>23</sup>	Removed during FPA – our position has not changed	£2.7	£2.7	£0
Commissioning power	Removed at FPA – Our view has not changed on this cost.	£0.0 <sup>24</sup>	£0.0	£0.0

2.27 The details of our intended adjustment are as follows:

### **COVID-19 - Converter Station Mitigation**

2.28 During the initial stages of the COVID-19 pandemic, IFA2 took the decision to minimise the converter stations workforce’s exposure to the wider population in the area. As a result of this, a number of changes were implemented which set out new approaches to multiple aspects of the project, including accommodation for visiting staff, the provision of food for the workforce and additional sanitising and cleaning stations.

2.29 Food was provided to all staff between March and July at a cost of £0.2m, this was to limit the exposure of the UK and France converter station site staff with the locals within the town when purchasing lunch. The efforts to minimise the mixing of people was to reduce the possible chance of infection from COVID-19 for both staff and the local population however, the provision of food for all staff onsite went beyond what we would consider an efficient course of action and that alternate provisions could have been put in place to reduce covid exposure without the developer covering all food costs. As a result of this, we propose to disallow these costs.

2.30 In addition to the above adjustments, a number of notable events occurred during the project’s construction period, the cost of which we have determined to be economic and efficient. We therefore propose to allow these costs for inclusion in the final cap and floor levels. An overview of these is provided below:

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<sup>23</sup> Treatment of DSU insurance and Commissioning Costs are included within the FPA [https://www.ofgem.gov.uk/sites/default/files/docs/2018/07/final\\_project\\_assessment\\_of\\_the\\_ifa2\\_interconnector\\_to\\_france.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2018/07/final_project_assessment_of_the_ifa2_interconnector_to_france.pdf)

<sup>24</sup> Submitted value was £8k, which was removed in full in line with FPA decision.



### **UXO and Route Clearance**

2.33. NGIFA2 provided information in the 2019 RIGS submission showing that the cable route was heavily populated by UXOs. In the 2020 RIGS submission, NGIFA2 confirmed that approximately 1,000 targets were investigated and 76 were confirmed as UXOs. This number was reduced to 37 after detonations carried out by the French and British navies. A contract was put out to tender for the disposal of the remaining targets. These operations were partially conducted using stillages and partially were detonated on site, where transport was not suitable and cost £2.1m of the overall £14.3m total for UXO investigation and removal. We are satisfied that IFA2 took all reasonable steps to ensure the efficiency of these costs, such as undertaking a competitive tender exercise for the UXO disposal works.

### **COVID-19 pandemic**

2.34. NGIFA2 incurred various additional costs as a result of the impact of the COVID-19 pandemic. These were submitted under four different claims, which related to:

- Extension of time as a result of a reduced number of contractors being able to work alongside each other due to social distancing. As a result of this, there was resequencing and additional working time required to complete the work as close to the original projected completion date as possible.
- Mandatory quarantine time for any contractor travelling into or out of the UK as well as for anybody who would be boarding a vessel for cable laying. Each instance of quarantining had a period of 14 days and the costs related to this were passed on to the developer.
- Additional Project Management costs for the developer as a direct result of the extension of time.
- Converter station mitigation measures which included the provision of onsite accommodation, onsite food provision as well as enhanced cleaning and the provision of onsite sanitation stations.
- A small amount of risk allowance remained to cover any COVID-19 costs between the submission of the PCR and the PCR update, however, the update confirmed that no further claims were submitted in this period.

2.35. These costs were assessed to confirm that they were unavoidable, the developer mitigated the issue in the most economic and efficient manner and that the cost was wholly COVID-19 related and were not related to other factors. We were happy that all of the incurred COVID-19 costs met these criteria (except the food provision as outlined in paragraph 2.32).

#### Converter Station Modifications

2.36. Various consenting conditions were placed on the construction of the Daedalus converter station by Fareham Borough Council due to the location of the site and its proximity to an airport and high-tech factory. As a result of this, conditions to limit the visual impact of the building as well as additional measures to limit the electromagnetic field and radio frequencies emitted by the converter station were put in place. To mitigate any potential interference issues caused by the converter station, a Faraday cage was constructed but in this instance, this alone was not enough so additional cages were constructed within the building as well as modifications to the buildings services.

2.37. Multiple cost claims arose from the contractor as a result of the additional consenting requirements, these costs formed a settlement between the contractor and NGIFA2 which covered the entirety of the works. We analysed the requirements set by the council as well as the process which NGIFA2 took toward the settlement negotiation process and found that NGIFA2 had taken appropriate steps to ensure that the work was carried out in an efficient manner and that all costs had been incurred efficiently.

#### **Proposed final operational costs**

2.38. Excluding market related costs (which do not directly affect the cap and floor levels) NGIFA2 submitted projected operational costs of £516.0m in total for the 25-year cap and floor regulatory term as part of the PCR submission.<sup>25</sup> We have reviewed the submission, and are minded to make cost reductions equating to £2.9m. The main components of the operational costs are provided in **Table 4** below.

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<sup>25</sup> In its PCR submission, NGIFA2 submitted a projected total opex of £470.3m of which £23.3m were indicative market related costs.

**Table 4 - Overview of proposed operational cost adjustments, 2016/17 prices**

Category	Description	PCR submitted cost (£m)	Proposed adjustment (£m)	Indicative adjusted cost (£m)
Controllable opex	All of the main operating costs	424.2	-0.9	423.3
Non-controllable opex	Costs relating to leases and statutory fees	23.7	0	23.7
Repex	Costs for periodic asset replacement	41.9	-2.0	39.9
Decommissioning	Funds provisioned for decommissioning costs	26.2	0	26.2
<b>Total</b>		<b>516.0</b>	<b>-2.9</b>	<b>513.1</b>

2.39. The details of our intended adjustments are as follows:

### **Marketing and Website Costs**

2.40. NGIFA2 submitted marketing costs as part of their operational costs, these cover marketing specifically for NGIFA2 as well as shared marketing which relates to the NGV portfolio of interconnectors. The total value for these costs would be £2.0m over the 25 year period.

2.41. While assessing the costs for the marketing activities, it was determined that the marketing resulting from the shared NGV portfolio approach would be the most economic method of marketing the interconnector and that costs relating to this portion of the marketing costs should suffice and we would be minded to remove the costs related to NGIFA2-specific marketing. This resulted in a reduction of approximately £1.0m.

### **Repex**

2.42. At the PCR stage, NGIFA2 submitted an estimated cost of £41.9m over the 25-year operational period. This is a significant increase from our 2018 FPA decision, which set the

allowance at £13.5m based on NGIFA2's 2018 submission. NGIFA2 submitted information to us to support the PCR cost estimate.

2.43. As part of the submission NGIFA2 provided estimates from each supplier of the assets covered by repex. The estimates set out the projected lifespan of each asset, the number of replacements required during the 25-year operation of the interconnector and an associated cost for these replacements. The costs for each category were either supported by a detailed cost breakdown outlining how the total was arrived at or took the form of a potential price range of the costs, in which the mid-point of this range was used as part of the PCR. We assessed these estimates and further clarification questions were sent relating to NGIFA2's approach to replacements on specific repex costs. This was to assess NGIFA2's efficiency of approach and to determine whether the costs are appropriate for the work involved.

2.44. As part of this process, it was highlighted that aspects of the Control & Protection costs were above what we considered to be economic values, and in addition to this, there were areas where potential efficiency savings could be made with co-ordination of work between converter stations.

2.45. As a result of this, we are minded to allow the bottom of the range of the Control and Protection costs, which is a decrease of £2.0m from the submitted cost for this category. The remaining constituent component of the repex costs were found to be economic and efficient when assessed.

2.46. As stated in our FPA decision, repex is treated as a standalone operational RAV addition (rather than being part of opex), meaning there is no provision for adjustments to our repex allowance following our PCR decision.

### **Updates from our 2018 FPA decision**

2.47. Our FPA decision commented on a number of issues which were to be reviewed at the PCR stage. These costs have been included in our previous totals within this document. At this stage of our review, the outcome for each is as follows:

- Exercised Options – since the FPA, there have been two options that have been exercised which relate to monitoring of both the onshore and offshore cables. Option 3.1 covered the Distributed Acoustic Sensing (DAS) costs while Option 5.2.1.1 was for the Distributed Temperature Sensing (DTS) equipment. We reviewed these costs and the circumstances around how it was incurred and determined that the approach taken by

the developer was the most economic and efficient method of procuring the monitoring equipment.

- Risk related expenditure – at the submission of the PCR, approximately £2.5m<sup>26</sup> of risk allowance was included within the PCR submission. This related to handful of ongoing activities, such as cable protection, capacitors and any potential COVID-19 impacts to the remaining work being undertaken. This was further reduced in the RIGS 2021 submission and finally reduced to £0 with the October 2021 PCR update. Risks associated with the burial campaign were realised as a second post lay survey identified areas requiring remedial burial work, however, capacitor and COVID-19 related risks were retired. The costs incurred from the risk budget were assessed and determined as efficient.
- Decommissioning - as part of the FPA assessment, the allowance for decommissioning had a provisional placeholder value of £13.9m, which has remained unchanged since the IPA. The value used at this stage was an early estimate and a more accurately costed value would be submitted at the PCR for assessment.

Since the IPA was submitted, the treatment of subsea cables has clarified. This is due to a requirement from the Crown Estate in which cable removal is required to be carried out unless the benefits of leaving the cable in situ can be demonstrated as having a smaller environmental impact to the seabed and its ecosystem.

Therefore, at submission of the PCR, a more detailed cost for the decommissioning of both onshore and offshore assets was provided, with a value of £26.2m, a rise of £12.3m to capture the detailed costs associated with subsea cable removal.

Following our review of the submitted costs and the associated work involved, we have found the total value associated with the project's decommissioning costs to be acceptable.

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<sup>26</sup> This value represents NGIFA2's share.



### 3. Proposed licence modifications and updates to NGIFA2's financial parameters

#### Section summary

This section presents our proposed changes to NGIFA2's special licence conditions as a result of governance changes made to the CFFM. We also outline proposed modifications to NGIFA2's financial parameters.

**Question 1: Do you agree with our proposed modifications to NGIFA2's special licence conditions?**

**Question 2: Do you agree with our proposed changes to NGIFA2's financial parameters, specifically its corporation tax rate?**

#### Consequential changes to NGIFA2's special licence conditions

3.1. In 2019, we split the CFFM into two separate models: Cap and Floor Financial Model 1 (CFFM1) and Cap and Floor Financial Model 2 (CFFM2). In the context of the IFA2 project:

- IFA2CFFM1 – to be used to determine the final cap and floor levels at PCR stage, following the final assessment of costs for developing, building, maintaining, operating and decommissioning the interconnector project; and
- IFA2CFFM2 – to be used during the operational period to adjust cap and floor levels (where required following revision of the baseline allowance for controllable operating costs or decommissioning costs) and inflate cap and floor levels annually; reflect performance relative to NGIFA2's availability targets; assess, at the end of each default 5-year assessment period, actual revenue earned by NGIFA2 against the adjusted cap and floor levels, and actual non-controllable operating costs against the baseline level, to determine whether NGIFA2's revenues should be 'topped up' to the floor level or whether excess revenue (above the cap level) should be returned to consumers.

3.2. The IFA2CFFM1 can be found in Appendix 4. The IFA2CFFM1 is fully populated with the actual inputs used to determine NGIFA2's cap and floor levels, as presented in this consultation.

3.3. The IFA2CFFM2 and associated handbook will be published alongside our PCR decision.

3.4. As a result of the changes described, we propose to modify the special licence conditions of NGIFA2's licence in the manner described to reflect this change in governance arrangements. Further details on the proposed modifications, including the reasons and effect of the proposed changes, can be found in Appendix 3.

## **Updates to NGIFA2's financial parameters**

3.5. In NGIFA2's FPA decision, we specified that the "corporation tax rate used for the purposes of calculating cap and floor values is 17%". Using the corporation tax rate of 17%, the preliminary cap and floor levels were calculated as £50.70m and £27.57m respectively (2016/17 prices).

3.6. NGIFA2 took FID in financial year 2016/17. At that time, there was an expectation, as published in Budget 2016, that corporation tax would decrease from 20% (in 2016/17) to 19% in 2017/18 until 2019/20, and then a further reduction to 17% would occur in 2020/21 – the year IFA2 became operational. As such, when the FPA was published, we chose a corporation tax rate of 17% in line with the expectation at FID that the rate would be 17% in the year IFA2 would start operations.

3.7. At Budget 2020, it was announced by the government that the corporation tax rate for the year 2020/21 would remain at 19%. As such, we have decided to use a corporation tax rate of 19% for NGIFA2 as this is the prevailing tax rate for the year the project entered operations.



## Appendices

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## Documents published alongside this consultation

Document	Description
<b>Appendix 3</b>	Notice of statutory consultation on proposed modifications to the special conditions of the electricity interconnector licence held by NGIFA2  <b>Schedule 3A</b> - Proposed modifications to the special conditions of the electricity interconnector licence held by NGIFA2  <b>Schedule 3B</b> - Reasons and effects of proposed modifications to the special conditions of the electricity interconnector licence held by NGIFA2
<b>Appendix 4</b>	IFA2CFFM1  <b>Schedule 4A</b> - Cap and Floor Financial Model 1 Handbook (CFFM1H)

## Appendix 1

This appendix outlines our approach to determining the value of the inflation indices and used within our assessment of project costs submitted by NGIFA2 at the PCR stage.

At this stage, we have reviewed all submitted costs during construction and forecasted costs during operation to assess whether these have been (or would be, in the case of future costs) economically and efficiently incurred. Under our cap and floor regime, these costs play a key role in the building blocks approach that we use to determine the cap and floor levels for an interconnector project.

Depending on the nature of the costs, i.e. construction costs already incurred or forecasted operational costs, the costs submitted at this stage are denominated in pound sterling (GBP) and expressed in either real or nominal terms for the year in which those costs have been incurred (or are expected to be incurred).

The cap and floor levels for the NGIFA2 project have to be denominated in pound sterling (GBP) and in real 2016/17 prices<sup>27</sup>; therefore, we had to convert both construction and operational costs into 2016/17 prices.

### Costs during construction

NGIFA2's cost submission for PCR includes costs incurred during the construction period of the project, which lasted from 2016 to 2022.<sup>28</sup> These costs are expressed in GBP and in nominal terms following bilateral agreement between us and NGIFA2. Hence, they had to be converted as described above.

For those costs incurred during the 2010-2021 period, historical 12-month averages of inflation indices (UK RPI) were used to achieve the conversion described above, as monthly figures were available for each month during the 2010-2021 period and historical 12-month averages could be calculated for each parameter in each year based on those figures.

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<sup>27</sup> As per our 2018 decision on the cap and floor regime for the NGIFA2 project:

<sup>28</sup> These include development expenditure (devex), capital expenditure (capex) and cost of spares.

### **Costs during operations**

In NGIFA2's PCR submission, costs during operations<sup>29</sup> are expressed in GBP in real terms (2019/20) will be incurred during the 25-years of the regime, between 2021- 2045.

An indexation factor has been applied to the costs during operations to convert them from real 2019/20 prices to real 2016/17 prices. The indexation factor is calculated as UK RPI value for the 2019/20 financial year divided by the UK RPI value for the 2016/17 financial year.

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<sup>29</sup> These include controllable and non-controllable operating expenditure (opex), replacement expenditure (repx) and decommissioning costs (decommex).

## Appendix 2 – Privacy notice on consultations

### Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

#### 1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem").

The Data Protection Officer can be contacted at [dpo@ofgem.gov.uk](mailto:dpo@ofgem.gov.uk)

#### 2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

#### 3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

#### 3. With whom we will be sharing your personal data

***(Include here all organisations outside Ofgem who will be given all or some of the data. There is no need to include organisations that will only receive anonymised data. If different organisations see different set of data then make this clear. Be as specific as possible.)***

#### 4. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for ***(be as clear as possible but allow room for changes to programmes or policy. It is acceptable to give a relative time e.g. 'six months after the project is closed')***

#### 5. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3<sup>rd</sup> parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at <https://ico.org.uk/>, or telephone 0303 123 1113.

**6. Your personal data will not be sent overseas** (Note that this cannot be claimed if using Survey Monkey for the consultation as their servers are in the US. In that case use “the Data you provide directly will be stored by Survey Monkey on their servers in the United States. We have taken all necessary precautions to ensure that your rights in term of data protection will not be compromised by this”.

**7. Your personal data will not be used for any automated decision making.**

**8. Your personal data will be stored in a secure government IT system.** (If using a third party system such as Survey Monkey to gather the data, you will need to state clearly at which point the data will be moved from there to our internal systems.)

**9. More information** For more information on how Ofgem processes your data, click on the link to our “[Ofgem privacy promise](#)”.