Draft impact assessment

Proposed changes to our electricity interconnector cap and floor regime to enable project finance solutions

Division:	Systems and Networks	**Type of measure:**	Variations to our cap and floor regime for two projects to enable a range of financing solutions
Team:	Interconnectors	**Type of IA:**	Qualified under Section 5A UA 2000
Associated documents:	1) Consultation on proposed changes to our electricity interconnector cap and floor regime to enable project finance solutions (October 2019) 2) Enabling a range of financing solutions under the cap and floor regime (December 2015)	**Contact for enquiries:**	Okon.enyenihi@ofgem.gov.uk
Coverage:	Partial coverage of policy decisions in the associated documents		

Introduction

Purpose

This draft Impact Assessment (IA) aims to identify and assess the likely impacts on consumers resulting from changing specific aspects of Ofgem's default cap and floor regime design. In doing so it provides an initial appraisal of whether variations requested by two developers, for the purposes of raising finance, would improve consumer outcomes and should be accepted.

The scope of our assessment is limited to the impact of two projects led by the developers that made the requests, but we have also considered long-term impacts of additional three cap and floor projects that will need to raise financing in the future.

We are seeking views on our assumptions and initial analysis in this draft impact assessment and also on whether there is additional evidence or factors that we have not included, but should consider further when updating the assessment to inform our decision.

Summary: Intervention and Options

What is the problem under consideration? Why is Ofgem intervention necessary?

We[1] regulate interconnector development in Great Britain (GB) under our cap and floor regime. The regime framework allows developers to request regime variations provided they can demonstrate that these are in the interests of consumers.

Greenlink Interconnector Limited (Greenlink) and NeuConnect Britain Limited (NeuConnect) have requested specific changes to the default regime and we need to decide whether to approve or reject these requests.

The main rationale put forward by the developers for these variation requests is that they will help to secure financing that will enable their projects to progress and thus consumer benefits to be realised. They argue that without these variations, the projects will not go ahead or will be substantially delayed.

What are the policy objectives and intended effects, including the impact on Ofgem's Strategic Outcomes?

The policy intent of considering regime variations is to ensure that the cap and floor regime is suitable for a range of financing solutions.[2] This can help to promote competition and innovation in the financing of interconnectors and incentivise the efficient and cost-effective delivery of projects.

Interconnectors link GB to nearby markets, allowing consumers to benefit when electricity is cheaper in these markets. Interconnectors also support consumers' interest in decarbonising at lowest cost by facilitating the integration of renewable generation.

The final decision we take should enable developers to progress projects in a timely manner, as intended under the default regime, and enable us to carry out our principal duty to protect the interests of existing and future consumers.[3]

What are the policy options that have been considered, including any alternatives to regulation? Please justify the preferred option (further details in Evidence Base).

[1] The terms "the Authority", "Ofgem" and "we" are used interchangeably. The Authority is the Gas and Electricity Markets Authority. Ofgem is the Office of the Gas and Electricity Markets Authority.
[2] As set out in our December 2015 open letter on financing solutions under the cap and floor regime: https://www.ofgem.gov.uk/sites/default/files/docs/cap_and_floor_regime_variations_open_letter.pdf
[3] S4AA Gas Act 1986 and s3A Electricity Act 1989

The developers initially requested a larger number of variations than the list of key variations we have identified.[4] As noted in Section 3 of our consultation, these requests were filtered as part of our initial review for one or more of the following reasons:

- Our review and supporting evidence suggest these additional requested variations do not appear to be as material (ie essential from a debt financing perspective) as the key issues (including where issues are smaller in scale and nature);
- We do not consider them as variations which are intrinsic to the cap and floor regime – rather, as matters which would be subject to our decision making process in due course; and/or
- They are not common across projects and therefore not deemed to be as important from a debt financing perspective.

The five key regime variations we have considered are set out below:

- **Variation 1**: To reduce the default five-year revenue assessment period to one year.
- **Variation 2**: To consider changes to the principle underpinning our Minimum Availability Threshold (MAT) of 80% (below which the floor is not paid).
- **Variation 3**: To broaden our definition of force majeure events under the default regime to cover more events.
- **Variation 4**: To use project-specific actual cost of debt and gearing to set the cap and floor levels and to calculate Interest During Construction (IDC),[5] rather than the default notional cost of debt and gearing.
- **Variation 5:** To maintain the default 25-year regime length where projects are late to start operation rather than reducing the regime length to reflect project delays.

To maximise the value of our analysis and focus stakeholders' responses on the essential issues, we have set out the following four options to consider:

- **Option 1 – Counterfactual**: This is the 'status quo' or 'do nothing' option. Under this option, we would expect developers to progress projects under the default cap and floor regime without variations.
- **Option 2 - Accept Variation 1**: This is the 'do minimum' option. Under this option, we would change the default regime by reducing the default five-year revenue assessment period to one year as requested by both developers.
- **Option 3 - Accept Variations 1, 2 and 3**: In addition to Option 2, we would change the default regime by paying the floor to interconnector owners to enable

[4] Details of the full set of variations requested by both developers is provided in the consultation document published alongside this draft impact assessment.
[5] IDC is a return that developers will earn on economically and efficiently incurred spend incurred during the development and construction phases of projects.

continuity in debt servicing when they have missed the default 80% minimum availability threshold and would recoup these payments in future years in net present value (NPV) neutral terms. We would also review our definition of force majeure events.

- **Option 4 - Accept Variations 1, 2, 3 and 4**: In addition to Option 3, we would change the default regime by using project-specific actual cost of debt and gearing to set the cap and floor levels, rather than the default notional cost of debt (which is based on corporate iBoxx indices) and gearing.

The initial stage of this draft impact assessment considered a fifth option.[6] As our assessment progressed, we removed Option 5 from our further quantified analysis because we found little evidence that Variation 5 was required for raising project finance debt.

Based on the information available to us and the assessment methodology that we have followed, we consider that Option 3 presents the best trade-off for consumers. This option should make the regime more attractive to a wider group of lenders. Under this option, the Greenlink and NeuConnect projects are expected to deliver consumer benefits of £593million to £802million relative to the counterfactual.

Preferred option - Monetised Impacts (£m)

Business Impact Target Qualifying Provision	Non-qualifying
Business Impact Target (EANDCB)	Not applicable
Net Benefit to GB consumers NPV figures represent the potential impacts of the Greenlink and NeuConnect projects on consumers under our preferred option. NPV figures represent long-term consumer impacts (under our preferred option) of the additional three projects that may seek project finance solutions in the future. The NPV figures are inherently uncertain. They are underpinned by assumptions on the probabilities of projects being cancelled, delayed or going ahead on time. Whilst we have made our best efforts to use feedback and evidence from lenders to inform these assumptions, the fact remains that this approach is uncertain.	 £593million to £802million £2,141million to £3,251million

[6] The fifth option (Option 5) covered accepting Variation 5 in addition to all the variations accepted under Option 4.

Wider Benefits/Costs for Society	Not quantified (See below)

Explain how the Net Benefit was monetised, NPV or other

The net consumer benefit is calculated based on Pöyry's near-term interconnector cost-benefit analysis which informed our IPA decision for each project.[7] The Pöyry benefits estimate is adjusted to reflect a potential increase in cost to consumers caused by the variations and the potential costs of project delays if variations are not accepted and a modelled response from a generic developer depending on the variations accepted. Net consumer benefits are presented relative to our counterfactual (where requested variations are not accepted).

The Pöyry cost-benefit analysis is an NPV estimate of consumer benefits calculated over the regime duration (25 years) using a discount rate of 3.5% (following the HM Treasury Green Book guidance) and a base year of 2019 for Greenlink and 2021 for NeuConnect. We have updated the NPV base year for both projects to 2022. The relevant figures have also been updated to 2018/19 price base using the GDP deflator from HMT.

Wider Benefits/Costs for Society

We have not quantified the wider impacts and unintended consequences of the options considered in this draft impact assessment. We have discussed this qualitatively in Chapter 4 in accordance with Ofgem's impact assessment guidance.[8] We focus on the impacts of the options under consideration on vulnerable consumers, the environment, cap and floor projects in general and Ofgem's administrative and resources costs.

Preferred option - Hard to Monetise Impacts

Describe any hard to monetise impacts, including mid-term strategic and long-term sustainability factors following Ofgem impact assessment guidance

We focus our assessment of hard-to-monetise impacts on how our preferred option may affect Ofgem's mid-term strategic and long-term sustainability factors (as set out in our Impact Assessment Guidance). We are required to take into account the need to contribute to achieving sustainable development. Many of the areas traditionally considered under sustainable development are challenging to monetise, making them difficult to incorporate within an aggregate monetised cost-benefit analysis.

[7] The IPA stage is when we assess the needs case for projects and grant a cap and floor regime in principle. This is an economic assessment that takes into account the total costs and benefits of new projects and assessing the likely consumer impacts of developing projects under the default regime.
[8] Ofgem's Impact Assessment Guidance (Oct 2016): https://www.ofgem.gov.uk/publications-and-updates/impact-assessment-guidance

We have focused on factors such as investors' confidence, potential to crowd-out balance sheet financing, and the potential that our proposals (which support more interconnection) could lock-out competing technologies.

Our 2019-23 strategic narrative sets out that consumers and stakeholders should expect us to enable competition and innovation, which drive down prices for consumers.[9] Longer-term sustainability considerations (e.g. out to 2050) include playing a key role in the transition to the low carbon economy and wider sustainability goals.

The net effect of impacts on these factors is difficult to model given their complexity and long-term nature.

Key assumptions, sensitivities and risks

Impacts associated with the options we analyse are difficult to quantify. As a result, we have made assumptions to be able to quantify some important aspects:

Assumptions

- We assume that our expectations about energy market access and electricity trading rules at the time of our IPA decision on projects remain broadly correct.
- While we understand some aspects of the analysis completed by Pöyry in 2014 (for Window 1 projects including Greenlink) and 2017 (for Window 2 projects including NeuConnect) could have been updated, in our analysis we assume that their conclusions, in terms of net benefits for consumers, are still broadly correct.[10,11] On the basis of these assumptions, we have therefore not updated our estimates of the expected net benefits of the interconnectors being built.
- We model developers' responses to different options by making assumptions about how those options could change the probability of different outcomes occurring, such as the construction of an interconnector on time. To capture some of the uncertainty involved, we provide a probability range, rather than a single point estimate.
- We assume that developers receiving project finance will progress their projects in a timely manner – we do not consider wider factors that could cause delays or cancellations.

Sensitivities and scenarios

- We have evaluated the robustness of our conclusion by analysing to what extent consumer costs would vary with certain assumptions. These high, medium and low estimates depend on the specifics of the variations and are described in Section 3.

[9] Our strategic narrative for 2019 – 23 (Jul 2019): https://www.ofgem.gov.uk/publications-and-updates/ofgem-strategic-narrative-2019-23
[10] A Pöyry report for Ofgem (Dec 2014): https://www.ofgem.gov.uk/sites/default/files/docs/2015/03/791_ic_cba_independentreport_final.pdf
[11] A Pöyry report for Ofgem (Jan 2017): https://www.ofgem.gov.uk/system/files/docs/2018/01/near-term_interconnector_cost_and_benefit_analysis_-_independent_report_.pdf

- Potential extra costs to consumers under these scenarios are driven by the assumptions set out in Table 4. We have also modelled a range of responses by developers to our decision to try to capture some of the uncertainties around the four potential outcomes that we have considered.

Risks

- The key risk factor is that we have not considered a situation where energy market access and electricity trading rules change significantly relative to the situation on which our IPA decision on projects was based. This could occur, in particular, due to different arrangements after the UK's exit from the European Union.

- We have also not updated key factors underpinning the analysis completed by Pöyry in 2014 and 2017 for both projects. Some of these factors, such as interconnector build profiles and competition from other technologies to displace interconnectors, may be different from the projections used in the Pöyry analysis.

- Assigning probabilities to risk of delay or cancellation of projects is inherently difficult because there is no existing evidence on which to base these assumptions. We have used the feedback and insight from lenders[12] to inform our ranges. This has led to a relatively narrow range of developer responses to different options (in some cases). This means that there is a significant chance that the expected net benefits of different options falls outside the ranges we have provided. We would welcome further evidence on the impact on different options on developer behaviour.

Will the policy be reviewed? Yes	**If applicable, set review date:** A review date will be fixed in the final Impact Assessment.

Is this proposal in scope of the Public Sector Equality Duty?	No

Summary table for options

Table 1 below (on the next page) provides an overview of consumer impacts generated by the Greenlink and NeuConnect projects across the options considered in this draft impact assessment.

[12] These are project finance lenders that we met with to discuss the default regime and requested variations. More information on this engagement and feedback from lenders has been provided in Chapter 3.

Table 1: Net consumer impacts of Greenlink and NeuConnect projects relative to the counterfactual

Summary of options	Non-quantified impacts	Net impact (relative to the counterfactual)	Key considerations
Option 1: 'Do nothing' (counterfactual)	Wider impacts of project delays or suspension if developers are unable to raise required financing to progress projects in a timely manner.		• Risk of project delays and/or suspension, due to potential financing difficulties.
Option 2: Accept Variation 1	Attracting a range of financing solutions could enable competition and innovation in the development and financing of interconnectors and may lower the cost of financing new interconnectors in the long run, or increase the pace of their construction, benefitting consumers.	£144million to £302million	• Prospect of broadening the financing pool available to developers. • Unanimous views from lenders and our adviser (PwC) in support of variation.
Option 3: Accept Variations 1, 2 and 3		£593million to £802million	• Likely to broaden the financing pool available to lenders. • Additional costs to consumers, and more uncertainty about them. • Consensus views from lenders and PwC on the importance of the three variations (under Option 3) from the project finance perspective.
Option 4: Accept Variations 1, 2, 3 and 4		£530million to £804million	• Potential to broaden the financing pool available to developers. • Significant further costs to consumers, and more uncertainty about them. • Mixed views from lenders and PwC on the importance of Variation 4 from the project finance perspective.

Contents

1. Context

This chapter describes the strategic context for this draft impact assessment and the policy objective Ofgem is seeking to achieve.

Background

1.1. Ofgem's priority is to protect the interests of existing and future energy consumers. We work to promote value for money, security of supply and sustainability for consumers. We do this in a number of ways including the regulation of electricity interconnectors through our cap and floor regime.

1.2. Electricity interconnectors are physical links which allow electricity to flow across borders. They have potentially significant benefits for consumers: lowering electricity bills by allowing access to cheaper generation, providing efficient ways to deliver security of supply and supporting the decarbonisation of energy supplies.

1.3. The regime has been successful in attracting four National Grid Ventures (NGV)-led projects (all of which are under construction or operating) and five projects to be financed on a standalone basis using project finance. Developers are able to request variations to the default regime design by demonstrating that the variations will improve outcomes for consumers.

1.4. More information on the projects and the existing default regime is set out in Section 2 of the consultation document published alongside this draft impact assessment.

Problem under consideration and rationale for action

1.5. Greenlink and NeuConnect are currently in early stage financing discussions with lenders and have suggested that changes to some aspects of the default regime are necessary for them to be able to raise required financing. They have made separate requests for variations and our decision on these requests will enable them to progress their financing plans accordingly.

1.6. To make a decision, we have reviewed developers' submissions and supporting evidence; sought expert views from banks and institutional debt lenders; and taken advice from PricewaterhouseCoopers (PwC). We have analysed the evidence available to us in this draft impact assessment to better understand potential consumer impacts under the options we have considered.

1.7. Table 2 below provides an overview of all cap and floor projects without required financing in place including the two projects that have requested regime variations.

Table 2: High level status of five projects that have yet to raise financing

Project	Capacity (GW)	Planned start date	Current status
Greenlink (to Ireland)	**0.5**	**2023**	**Applied for regime variations**
NeuConnect (to Germany)	**1.4**	**2023**	**Applied for regime variations**
FAB Link (to France)	1.4	2023	Initial discussions for regime variations

GridLink (to France)	1.4	2023	Have not applied for regime variations
NorthConnect (to Norway)	1.4	2023	Have not applied for regime variations

Cap and floor regime variation objectives

1.8. Our objective when considering potential cap and floor regime variations is to ensure that the regime is suitable for a broad range of financing solutions.[13] This would enable developers to progress projects efficiently and cost-effectively, which should in turn deliver benefits for consumers.

1.9. Our aim in making decisions on these variations is to identify and approve only the minimum variations that are necessary to allow the projects to proceed without significant delay, and hence mitigate the potential risk of transferring too much value from consumers to developers.

Document structure and content

The rest of this document sets out our draft analysis of consumer impacts across the options we have considered:

- **Chapter 2** sets out the options and likely outcomes that we have considered, as well as the associated risks with these options and outcomes.
- **Chapter 3** explains the draft impact assessment scope and our analytical approach.
- **Chapter 4** presents our quantitative analysis of the options, alongside long-term impacts and wider impacts.
- **Chapter 5** sets out the summary of our preferred option and our assessment of risks and uncertainties around it, as well as our implementation plan.
- **Chapter 6** describes the next steps, and our monitoring, evaluation and feedback plans.

[13] Enabling a range of financing solutions under the cap and floor regime (Dec 2015): https://www.ofgem.gov.uk/publications-and-updates/enabling-range-financing-solutions-under-cap-and-floor-regime

2. Options and Outcomes

This chapter describes the options and associated risks that we have explored for regime variations that could broaden the pool of financing available to the two developers. It also sets out how developers may respond to the options and associated risks.

Rationale for options

2.1. To achieve the objectives set out in Chapter 1, we have reviewed the default regime to better understand its attractiveness to different financing parties. We note that, to date, the regime has attracted corporate financing to allow the development and delivery of four projects (Nemo Link, NSL, IFA2 and Viking Link). These four projects have been developed by NGV.

2.2. Greenlink and NeuConnect have made separate requests for variations and we need to decide whether to approve or reject their requests. They initially requested more variations than are considered in this draft impact assessment, but these were narrowed to five as part of our initial assessment for the reasons provided on page 2 of this draft impact assessment.

2.3. The five key variations requested by developers are set out below:

- **Variation 1:** Currently the revenue assessment process takes place every five years. Developers have requested an annual assessment process to ensure that they are able to access any payments due from consumers annually. This would align our assessment process with the annual debt repayment obligations expected by developers.
- **Variation 2:** The default regime requires developers to ensure that the interconnector capacity is available to convey electricity at least 80% of the time in a given year. If this minimum threshold is not met and the interconnector cannot earn enough revenues in the market to support debt repayment, consumers will not top up revenues to the floor level in that year. Developers have requested that consumers should top up revenues to the floor even if the 80% minimum availability target is not met in order to enable debt servicing. They have proposed to repay consumers (from future revenues) on an NPV-neutral basis for payments received in years where availability is below 80%.
- **Variation 3:** Developers have requested that we should broaden our definition of force majeure events under the default regime to cover a wider range of events. The current definition of force majeure under the default regime is set out on page 3 of our licence conditions for NSL, and its text is presented below.[14] We request stakeholder views on potential changes to this definition that may be necessary from a project finance perspective.

[14] The legal definition of force majeure under the default regime is as set out on Page 3 of *Schedule 1A – New special conditions for the electricity interconnector licence held by National Grid North Sea Link Limited*: https://www.ofgem.gov.uk/system/files/docs/2018/07/schedule_1a_nsl_special_licence_conditions_published.pdf

Force majeure under the default regime: *means an event or circumstance which is beyond the reasonable control of the licensee, including act of God, act of the public enemy, war declared or undeclared, threat of war, terrorist act (or threat of), blockade, revolution, riot, insurrection, civil commotion, public demonstration, sabotage, act of vandalism, governmental restraint, provided that lack of funds of the licensee or performance or non-performance by an electricity transmission licensee or equivalent entity shall not be interpreted as a cause beyond the reasonable control of the licensee and provided that weather and ground conditions which are reasonably to be expected at the location of the event or circumstance are also excluded as not being beyond the reasonable control of the licensee.*

- **Variation 4:** In the default regime, the cap and floor levels and IDC are calculated based on a notional cost of debt benchmark (corporate iBoxx indices) and gearing is calculated based on comparator firms. Developers have requested that the cap and floor levels should be calculated based on the actual funding arrangements (cost of debt and gearing) resulting from a competitive debt raising process. They have indicated that the actual cost of debt and gearing may be higher than as set out in the default regime.

- **Variation 5:** In the default regime, developers will not get a full 25-year regime if their project is delayed and not operational by the set date. Developers have requested that Ofgem should maintain the default 25-year regime length where projects are late for reasons beyond their control, or where a delay is demonstrated to be in the interest of GB consumers (rather than reducing the regime length to reflect a late operational start date).

2.4. The initial stage of this draft impact assessment focused on the five variations set out above. As the assessment progressed Variation 5 was not taken forward. Through direct engagement with project finance lenders, we tested the variation requests and associated evidence that had been provided by both developers and found little evidence that Variation 5 was essential for raising the required debt financing. This position was also reflected in the initial assessment of the requested variations carried out by PwC.

2.5. The rest of our analysis focuses on Variations 1, 2, 3 and 4 which we have grouped into four different options as set out in Section 2.7.

Selection of options

2.6. We have narrowed the combinations of variations that underpin our draft impact assessment to a smaller number of specific options to reduce complexity. To define these options, we have:

- assumed that both projects would face similar conditions and that projects are homogenous;

- shortlisted the variations that had consensus support from potential lenders and PwC and ranked these in order of importance based on cost and risk to consumers;

- grouped the variations into a 'do nothing' counterfactual and three combinations of potential changes (a 'do minimum' case – approve Variation 1, a 'do maximum' case - approve Variations 1, 2, 3 and 4 and a 'middle' case – approve Variations 1, 2 and 3); and

- for long-term impacts, we assume that Greenlink and NeuConnect are representative developers and that any future variation requests would be similar to the current set.

Options

2.7. Based on the rationale above, we have limited the options for this draft impact assessment to four: rejecting or accepting Variations 1, 2, 3 and 4 and two intermediate options. The four options are set out below.

Option 1 – Counterfactual: This represents the 'status quo' or 'do nothing' option. Under this option, developers have to progress projects under the default regime without variations.

Option 2 - Accept Variation 1: This is the 'do minimum' option. Under this option, there could be a negligible extra cost to consumers. To implement Variation 1, we would change the default regime by reducing the default five-year revenue assessment period to one year as requested by both developers. Project finance lenders and PwC advised that five-yearly assessments are likely to result in a requirement from lenders for alternative forms of financial liquidity. This is because developers would not be guaranteed to have sufficient funds to meet their annual debt obligations to lenders in any given year.

Option 3 - Accept Variations 1, 2 and 3: In addition to Option 2, we would change the default regime by paying the floor to interconnectors when they have missed our 80% standards for minimum availability and recoup these payments in future years in NPV neutral terms. We would also consider expanding our definition of force majeure under the regime to cover additional events.

Option 4 - Accept Variations 1, 2, 3 and 4: In addition to Option 3, we would change the default regime by using project-specific actual cost of debt and gearing (achieved through a competitive market process) to set the cap and floor levels and IDC rate, rather than the default notional cost of debt (which is based on corporate iBoxx indices).

Rationale for outcomes

2.8. To be able to assess consumer impacts, we have to consider how developers would react to the options under consideration and the outcomes that are likely.

2.9. To enable us to focus on fewer outcomes, we make a similar set of assumptions to those that we made earlier (when selecting options). We focus on outcomes that are the most likely based on our evaluation of evidence available to us. We have assumed notional developers, and therefore that each project would react in a similar way – we have not differentiated between developers.

2.10. Our analysis is informed by engagement with project finance lenders and investors, as well as submissions by developers, which have indicated their ability and willingness to move forward with project financing under some combination of the variations. It is further informed by PwC's assessment of developers' submissions which indicated the importance of Variations 1 and 2 for enabling project finance solutions and that lenders would expect adequate force majeure protection (Variation 3). This view was reinforced by the views of our internal finance specialists and engagement with finance providers.

2.11. Our assessment suggests that four outcomes are likely based on developers' responses to our decision (cancellation of projects if developers are unable to secure required financing, built on balance sheet or with project finance with delays, or built with project finance on time).

2.12. We have ignored some intermediate outcomes (that may be possible if we relax our assumptions) to simplify the analysis, such as where the project size determines the length of delay or ability to raise required financing.

Outcomes

2.13. Our analysis in this draft impact assessment focuses on the impact on consumers taking into account the four outcomes set out below. We expect developers to respond in a number of ways which we have limited to the following:

- **Outcome A - None of the projects would be built:** Under this outcome, developers are unable to raise required financing leading to suspension or cancellation of projects.
- **Outcome B – Projects are delayed and then progressed using balance sheet financing:** Developers are unable to progress via project finance solutions, but manage to bring the projects ahead through balance sheet financing after delays, as a result variation costs do not apply.
- **Outcome C – Projects are delayed and then progressed using project finance:** Developers would continue and are able to raise required financing under project finance route but projects may suffer delays if the accepted variation package is not attractive enough.
- **Outcome D – Projects are progressed using project finance as expected:** Developers find the variation package attractive enough and are able to raise required financing. They would continue with their projects and deliver them on time.

2.14. In Table 3, below, we have estimated potential ranges for probabilities related to the four outcomes based on feedback from lenders, developers and our adviser. For simplicity, we have modelled a response from a generic developer. These ranges are subjective, and may change as developers adopt different strategies or decisions.

Table 3: Probability estimates range attached to Outcomes A, B, C and D

Outcomes (probability, %)	Option 1 (Counterfactual)	Option 2 (V_1)	Option 3 ($V_{1,2,3}$)	Option 4 ($V_{1,2,3,4}$)
Outcome A	70-30	55-25	25-0	25-0
Outcome B	30-10	20-5	20-5	20-0
Outcome C	0-40	20-40	30-15	20-10
Outcome D	0-20	5-30	25-80	35-90

2.15. As noted earlier, assigning probabilities to the outcomes is inherently uncertain. These probability ranges are estimated because there is a lack of empirical data or case studies for us to draw upon – this is the first time we are considering changes to our cap and floor regime to enable project finance, and there is a broader lack of GB project-financed interconnectors. As such, we are seeking feedback from stakeholders on our assumed probability ranges, and on how these have been used to shape our analysis.

2.16. Further detail on the methodology we have followed is set out under 'Determining the likelihood of outcomes' in Chapter 3.

3. Analytical approach to our draft impact assessment

This chapter explains the purpose and scope of this draft impact assessment and our analytical approach. This includes how we estimate monetised impacts and the hard to monetise impacts that we have considered.

Overarching approach to our draft impact assessment

3.1. The analysis in this draft impact assessment is intended to support our decision making process on the regime variations requested by the developers.

3.2. We have identified four groups that would be affected by the regime variation proposals: consumers; the Greenlink and NeuConnect projects; three additional cap and floor projects that have yet to raise required financing; and cap and floor projects that have successfully raised financing. We consider the impacts on non-cap and floor interconnector projects to be marginal and limited to competition impacts.

3.3. We have set out a proportionate assessment scope covering the four groups and defined the potential impacts on the groups as follows:

- **Consumers - regime variations would shift additional risks and costs to consumers:** our assessment aims to quantify aspects of these impacts to help us better understand which option is preferable.
- **Greenlink and NeuConnect - regime variations may reduce risks around raising required financing:** our assessment covers the likelihood of developers being able to progress projects, as well as the impacts on consumers.
- **Three additional cap and floor projects - regime variations may benefit other cap and floor projects yet to raise required financing:** our longer-term assessment covers the likelihood of developers being able to progress projects, as well as the impacts on consumers.
- **Other projects - regime variations may impact the balance of risks in the default regime for projects that have successfully raised financing relative to projects benefitting from regime variations[15]:** this assessment is qualitative and covers how projects that have successfully raised financing may be impacted, as well as the impacts on consumers.

3.4. Our assessment of impacts on the four groups above is provided in Chapter 4 under monetised impacts and wider impacts assessment. We have quantified the net impacts in NPV terms of Greenlink and NeuConnect projects and based on this, estimated the proportionate long-term impacts of three additional projects that have yet to raise financing.

[15] These are mainly projects that have passed our default regime Final Project Assessment (FPA) stage. At the 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.

Determining our counterfactual for assessing impacts

3.5. To assess the impacts of Options 2, 3 and 4, we consider that the relevant counterfactual would be the continuation of the default regime for projects (Option 1), whereby there would be no variations. Making this assumption about the counterfactual enables us to measure the impacts of the options relative to what otherwise would have happened and allows us to compare impacts associated with the different options.

Determining our preferred option

3.6. Our preferred option from this draft impact assessment is selected based on the overarching principle of improving outcomes for consumers.

3.7. We are interested in overall expected net benefits to consumers, ensuring a reasonable balance of risks across consumers and developers and expanding the pool of potential financing options for interconnector developers. More detail on the expected net benefits and costs relative to the counterfactual is presented under our monetised impacts assessment.

3.8. We have considered additional risks to consumers and uncertainty around cost estimates associated with each option we have considered as set out below:

- **Option 1:** Under this option where no regime variations are implemented, developers may be unable to raise required financing to move projects forward or find a buyer for a given project. It is also unlikely that additional interconnector projects could replace the current ones on time. A delay or suspension of projects means consumers may miss out on the benefits of new projects or that there is greater uncertainty around whether consumers would realise the expected benefits.

- **Option 2:** Under this option where the assessment period is reduced to one year, the risk sharing between consumers and developers is broadly the same relative to the counterfactual if revenues tend to be above the cap or below the floor by roughly the same amount. Otherwise, consumers may lose if revenues are often below the floor as they would not benefit from the prospect of smoothing revenue peaks and troughs over a five-year assessment period. Developers would also lose by roughly the same amount if revenues tend to be over the cap. We expect any extra cost associated with this option to be negligible. However, there is still significant uncertainty around whether projects will go ahead on time. This is because a project's cashflow, which lenders place high value on, is still at risk if availability drops below the 80% MAT.

- **Option 3:** Under Option 3, the risk sharing between consumers and developers shifts in favour of developers as additional consumer payments may be more likely under a broader force majeure definition. Consumers also take on the risk of non-repayment of all or any temporary payments made to interconnector owners (to ensure debt servicing obligation to lenders) in any year where the interconnector availability is below the required 80% MAT. This option comes with extra costs (and uncertainty around the associated extra costs) to consumers. However, developers would be expected to repay any extra costs from future revenues and Ofgem would aim to put in place protections to ensure that the risk of non-repayment to consumers is reduced.

- **Option 4:** Under this option, the risk sharing between consumers and developers shifts further in favour of developers as consumers may pay a higher floor if the actual cost of debt realised under a competitive market process is higher than the default notional cost of debt. We consider that the default regime addresses this risk by setting the iBoxx index as the default cap on the cost of debt. Developers that

are able to outperform the index may be able to improve their overall cost of financing which should also benefit consumers.

Feedback from project finance lenders

3.9. In May 2015, we asked stakeholders (including project finance lenders) to provide us with their views on the aspects of the regime which they think might need to be adjusted to make the regime more attractive to a broader range of financing solutions. In June and July 2015 we held bilateral meetings with these stakeholders.

3.10. In April and May 2019, we had another programme of direct engagement with project finance stakeholders to test developers' rationale for the variation requests. We were keen to test the views provided by developers directly with debt lenders, to improve our knowledge base and to ensure developer submissions fully represent market views. Views shared by these stakeholders through both engagements (2015 and 2019) were mixed but did suggest that some changes to the regime parameters were likely to be necessary to enable project finance solutions.

3.11. Views shared by these stakeholders through both engagements (2015 and 2019) are broadly consistent. A high level summary of the views is provided below:

- **Variation 1 – Five versus one yearly revenue assessments:** Every single stakeholder we spoke to suggested reducing the assessment period to a year. From debt servicing perspective, five yearly assessments create a cashflow issue as developers would not be able to access cash on an annual basis. This could lead to lenders asking for more cash to be held in reserve accounts to ensure that debt will be serviced accordingly and may result in additional cost to consumers.

- **Variation 2 – 80% Minimum Availability Threshold:** All stakeholders except one suggested that the binary nature of the 80% MAT is too harsh as it creates a cliff (ie removes the floor payments straight away) if 80% target is not achieved. Stakeholders suggested that Ofgem may want to review it and consider alternative arrangements. One lender provided a counter view suggesting that 80% target is comfortably achievable if best industry practices are followed.

- **Variation 3 – Force majeure definition:** Majority of stakeholders argued that they expect uninsurable risks to be adequately captured in any force majeure definition under the default regime. They suggested that Ofgem should consult further with developers and potential lenders to better understand what specific arrangements are put forward by them and to ensure that any proposed arrangements are fair to consumers. Stakeholders also suggested that this may not necessarily mean adding more events to the current definition.

- **Option 4 - Cost of debt:** Some stakeholders suggested using actual project cost of debt (with actual gearing) achieved from a competitive market process to set revenue floor levels. There were also views that cost of debt for interconnectors would depend on the prevailing debt market and so a notional cost of debt could be used, with a mechanism to share gain or loss (if the actual cost of debt exceeded the notional benchmark). Others considered using actual cost of debt and gearing as non-essential if Ofgem are interested in incentivising project finance lenders only.

Calculation of monetised impacts

3.12. Our assessment of monetised impacts aims to identify the options that offer the best value for money to consumers and has been conducted in accordance with Ofgem's Impact Assessment Guidance.

3.13. We have followed the below key steps to calculate monetised impacts:

1) **Estimating the benefits of each project:** We rely on NPV benefits estimates from Pöyry's near-term interconnector cost-benefit analysis which informed our IPA decision for each project. We note that the Pöyry estimates do not take into account the costs of variations, system operator costs or benefits and the cost of network reinforcement.

    - **Pöyry CBA modelling methodology:** Pöyry assesses the impact of interconnectors on consumers by comparing the NPV (using a 3.5% discount rate over the 25 year regime period) of consumer welfare[16] in the scenario without the assessed interconnector (the Pöyry 'counterfactual') and with the assessed interconnector (the Pöyry 'target case'). Net consumer benefits come primarily from changes in the costs due to wholesale electricity price movements from the introduction of the new interconnector. In addition, any payments to or from consumers under the cap and floor regime also represent a net change in the consumer welfare. The modelling follows two approaches covering a 'first additional' approach which looks at the NPV of impact that the project will have on its own; and a 'marginal additional' approach which looks at how sensitive each project is to the other interconnector projects competing to connect at the same time to capture the interactions between the projects. The marginal approach is selected to inform our decision. A detailed methodology for calculating social welfare impacts of the projects is presented in Annex A of Pöyry's report.[17,18]

2) **Estimating cost of variations:** We compare the cap and floor levels and payments[19] under the regime where variations have been accepted to levels and payments under the default regime without variations. The difference between the two is the cost of the variation. We also assess how yearly benefit estimates (profile) under the default regime change due to accepting variations.

    - Uncertainty: Our analysis of variations cost is carried out under three scenarios of low, central and high costs. To understand how variations affect consumer benefits, we estimate how different combinations of variations (Options 2, 3 and 4) increase the probability that the projects are completed successfully. In addition, we vary the assumptions used to determine the cost of the variation (under an extreme scenario) in order to test the robustness of our results. More detail is provided below under 'Cost of variations calculation' Sections 3.15 – 3.16 and under 'Uncertainties' in Sections 5.20 - 5.23.

[16] Consumer welfare is the sum of changes to the following: wholesale electricity price; low carbon support regime; new interconnector cap and floor payments; other interconnector cap and floor payments; and provision of ancillary services.
[17] Near-term interconnector cost-benefit analysis - Independent report (Dec 2014 report for Window 1): https://www.ofgem.gov.uk/sites/default/files/docs/2015/03/791_ic_cba_independentreport_final.pdf
[18] Near-term interconnector cost-benefit analysis - Independent report (Jan 2017 report for Window 2): https://www.ofgem.gov.uk/system/files/docs/2018/01/near-term_interconnector_cost_and_benefit_analysis_-_independent_report_.pdf
[19] Variations impact cap and floor levels and payments when they lead to an increase in RAV or an increase in the return rate applied to RAV to determine the cap and floor levels.

3) **Estimating cost of delays:** We compare cap and floor levels and payments determined under the default regime (when a project connects on time) against updated cap and floor levels and payments reflecting project delays. We also compare project revenues and the consumer benefits it generates under the default regime when a project connects on time against the same parameters when the project is delayed. We compare how the annual benefits estimates (yearly profile of benefits) change in the scenarios where there is a 1-3 year delay relative to the default 25-year regime duration. The net result of these estimates is the cost of delay. We have cross-checked the net effect of our estimates with the results of the sensitivity estimates around project connection dates that was performed by Pöyry in its 2017 report.[20] The consumer impacts of delays for each of the three Window 2 projects are provided in our Window 2 IPA consultation document.[21]

    - Uncertainty: Our analysis of cost of delays is carried out under three scenarios of low, central and high costs. We assume delay periods of 1 year (low case), 2 years (central case) and 3 years (high case) where the length of the regime is not extended to accommodate the delay. Under this assumption the project duration is 24 years under the low case scenario, 23 years under the central case scenario and 22 years under the high case scenario. To understand how delays affect consumer benefits, we estimate how different combinations of variations (Options 2, 3 and 4) increase the probability that the projects are completed successfully.

4) **Estimating the cost of outcomes as set out in Chapter 2:** We estimate the cost of each outcome as the sum of the costs of the variations accepted according to the option plus the loss of benefits to consumers deriving from project delays. This estimate is carried out under two probability scenarios (Scenarios 1 and 2). More information is provided below under 'Determining the likelihood of outcomes.'

5) Evaluating the expected benefits under each option: Expected benefits are evaluated across the probability ranges to obtain lower and upper bound figures based on the following formula:

- Impact under each outcome = Pöyry benefits – (cost of variation + cost of delay)
- Expected value under each option = A*p(A) + B*p(B) +C*p(C)+ D*p(D)
    i. where A, B, C and D correspond to impacts under the four possible outcomes as set out in Chapter 2; and
    ii. p is the probability reflecting the uncertainty of A, B, C and D (which are driven by developers' and finance providers' reaction to Options 2, 3, and 4, keeping everything else fixed).

[20] We note that the Pöyry estimates also showed that a Window 1 project delay (for example Greenlink) may lead to improvements in consumer benefits generated by a Window 2 project (such as NeuConnect).
[21] Cap and floor regime: Initial Project Assessment of the GridLink, NeuConnect and NorthConnect Interconnectors:https://www.ofgem.gov.uk/system/files/docs/2017/06/ofgem_window2_ipaconsultation_june_2017.pdf

3.14. These calculations may be subject to a broader uncertainty range making our impacts estimates only indicative at this point. Chapter 5 provides more detail on risks and uncertainties.

Costs of variations calculations

3.15. **Cost of variations:** This is the first calculation step under this draft impact assessment. The cost of each variation is calculated through five steps:

I. *We determine variation impact on cap and floor levels:* The default regime cap and floor levels are kept constant, we apply each variation separately to the default model in order to determine the revised cap and floor levels after the variation has been applied.

II. *We determine the cost of variation based on interconnector annual revenue profile:* We compare the Pöyry project annual revenue profile generated under the default regime against the Pöyry revenue profile under the revised cap and floor levels reflecting variation. The cost of each variation is driven by where revenue projection sits relative to the revised cap and floor levels.

III. *We determine variation impact on annual consumer benefits profile that the project is expected to generate (this step is applicable to Variation 2 only):* We apply Variation 2 to the Pöyry consumer benefits profile in order to determine the revised consumer benefits profile reflecting variation.

IV. *We carry out a comparative analysis of the following:* The Pöyry project revenue profile against the default regime cap and floor levels; the Pöyry revenue profile against updated cap and floor levels (reflecting variation); and the Pöyry consumer benefits profile against an updated Pöyry consumer benefits profile (reflecting variation).

V. *We then calculate the net effect of the difference as the cost of the variation:* The analysis is done under three scenarios of costs (low, central and high) with the central case selected to underpin our analysis. Some details are provided in Table 8 below.

3.16. Table 4 below provides more details on our assumptions and the scenarios supporting our cost of variations estimates. Variation 1 is not listed in Table 4 as we consider the direct cost of Variation 1 to be negligible.

Table 4: Scenarios for cost of variations estimates

Variation	Low cost	Central cost	High cost	Limitation
Variation 2	Interconnector capacity can only generate revenues equal to 50% of the floor (lasting for 1yr). Cost of this variation is an amount equal to 50% of floor payment for 1yr (as developers work out how to restore expected	Interconnector capacity can only generate revenues equal to 50% of the floor (lasting for 2yrs). Cost of this variation is an amount equal to 50% of floor payment for 2yrs (as developers work out how to restore expected	Interconnector capacity can only generate revenues equal to 50% of the floor (lasting for 3yrs). Cost of this variation is an amount equal to 50% of floor payment for 3yrs (as developers work out how to restore expected	• Limited evidence • Assumes consumers are never repaid the cost • Cost of variation driven by where revenue projection sits relative to cap and floor levels • Timing, size and frequency of faults might under- or

	capacity) plus any change in welfare due to capacity lost	capacity) plus any change in welfare due to capacity lost	capacity) plus any change in welfare due to capacity lost	over-estimate the likelihood and impact of such events[22]
Variation 3	Lack of variation leads to lenders requesting funds to be held in a reserve facility the size of 50% of annual floor payment. Cost of this variation is the cost of keeping the reserve facility	Lack of variation leads to lenders requesting funds to be held in a reserve facility the size of 100% of annual floor payment. Cost of this variation is the cost of keeping the reserve facility	Lack of variation leads to lenders requesting funds to be held in a reserve facility the size of 150% of annual floor payment. Cost of this variation is the cost of keeping the reserve facility	• Limited evidence • Our estimate from modelling assumptions provided in developers' submission • Reserve size might under- or over-estimate actual requirement • Cost of variation driven by where revenue projection sits relative to cap and floor levels
Variation 4	125bps margin over our notional iBoxx index & 70/30 gearing. Cost of variation is the difference in C&F levels and cumulative C&F payments over regime length	175bps margin over our notional iBoxx index & 80/20 gearing. Cost of variation is the difference in C&F levels and cumulative C&F payments over regime length	225bps margin over our notional iBoxx index & 90/10 gearing. Cost of variation is the difference in C&F levels and cumulative C&F payments over regime length	• Limited evidence - some evidence from developers' submissions • Cost of variation driven by where revenue projection sits relative to cap and floor levels

Determining the likelihood of outcomes

3.17. Our initial probability estimates for the four outcome scenarios are provided in Table 3, Chapter 2 and are presented again below.

Table 3: Probability estimates range attached to Outcomes A, B, C and D

Outcomes (probability, %)	Option 1 (Counterfactual)	Option 2 (V_1)	Option 3 ($V_{1,2,3}$)	Option 4 ($V_{1,2,3,4}$)
Outcome A	70-30	55-25	25-0	25-0
Outcome B	30-10	20-5	20-5	20-0
Outcome C	0-40	20-40	30-15	20-10
Outcome D	0-20	5-30	25-80	35-90

3.18. We have modelled the likelihood of the Outcomes A, B, C and D presented above following the steps set out below:

- We consider the uncertainty attached to each outcome (we expect the widest probability ranges to occur in the more extreme outcomes, eg Outcome A

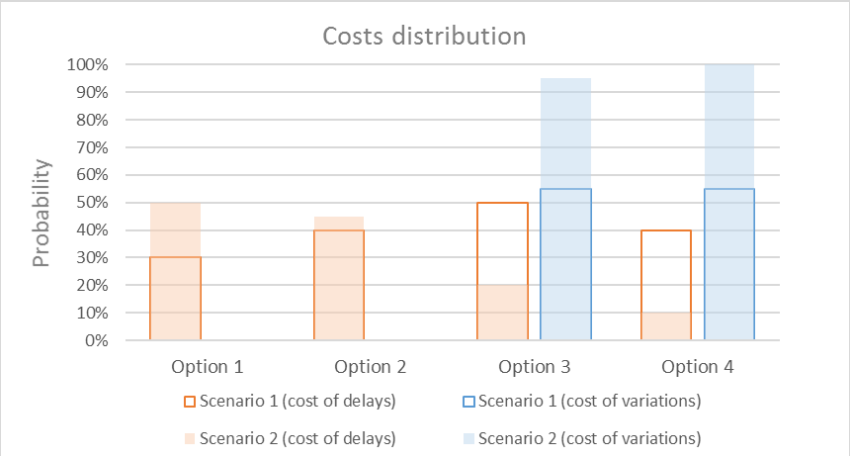
[22] GHD consultancy estimates target availability for interconnectors in the 90% region. We have also set a 60-day continuous operation proofing period before consumers can pay the floor. Evidence suggests that we may be overestimating the cost of Variation 2.

where less is approved; and Outcome D where more is approved – ie projects are either cancelled or all go ahead on time);

- We set a lower and upper bound for the probability ranges; and
- We test the probability ranges to ensure that they are consistent (for example: cost of delays should decrease from Option 3 through 4 and similarly cost of variations should increase).

3.19. Chart 1 below shows costs of variations and delays distributions for the different options. The chart is based on the estimates provided in Table 3 and shows that the cost impact of variations increases from Options 3 to 4 and the cost impact of delays decreases from Options 3 to 4. Cost of delays under Options 1 and 2 are lower relative to Options 3 and 4 because 30% to 70% of projects are cancelled under Option 1 and 25% to 55% are cancelled under Option 2.

Chart 1: Variations and delay costs distribution for Greenlink and NeuConnect



3.20. Under Option 1, developers see the risk of not being able to raise project finance as very high, which implies a low probability of Outcomes C and D, both of which require project finance. It is possible that the projects are sold to new developers that do not require project financing, such as balance sheet developers. However, this is uncertain and will be dependent on these parties having an interest in doing so and being willing to transact with current project developers on mutually acceptable economic terms.

3.21. In Option 2, only Variation 1 is introduced. In engagement with finance providers, this was seen as a useful amendment because lenders place high value on cash flows that match debt repayment profiles. Lenders also identified Variations 2 and 3 as very important in terms of establishing the 'bankability' of the projects. As a result, our assessment is that the probabilities of project financing (and hence Outcomes C and D) improve marginally compared with Option 1.

3.22. In Option 3, our assessment is that the probability of the projects going ahead using project finance increases. Variations 2 and 3 are now included, thus addressing the identified key issues of availability risk and force majeure, as a result the risk of developers not being able to obtain project financing diminishes materially. Hence, there is a material increase in the probability of Outcome D, where developers are able to raise project financing on the envisaged timetable.

3.23. In Option 4, Variation 4 is also included. This adjusts the regime to take into account the actual cost of project finance debt raised and the gearing of the project. Our assessment is that Variations 1, 2 and 3 already provide certainty over project cash flows (albeit the level of cashflow over the project life will depend on the iBoxx level at the time of financial close). This should allow developers to raise debt. However, the amount of debt raised will depend on the difference between the actual cost of debt realised in the market by developers and the iBoxx value. There is a risk for some projects that insufficient debt is available to make them viable under the project finance route, although they could potentially be viable for balance sheet investors. Therefore, in our assessment of Option 4, we see a marginally higher probability for Outcome D and a corresponding decrease in the need for the current developer to try to find a balance sheet partner or the project not happening at all.

3.24. The analysis we have provided here is preliminary. Our engagement with stakeholders and advice from PwC suggested that developers' and lenders' response would depend on the precise final arrangements used when implementing the variations.

3.25. Consultation responses on these points are requested, including the extent to which the detail of variations implementation will be important. We will review this preliminary assessment of risks and probabilities in light of consultation responses.

Hard to monetise impacts

3.26. We have carried out qualitative assessment of hard-to monetise impacts of the options under consideration. Our assessment focuses on the following factors:

- Direct impacts:
    - positive investors' confidence which may enable competition and innovation in the development and financing of interconnectors and drive down prices for consumers; and
    - reduced consumer benefits if variations crowd-out balance sheet developers from developing projects under the default regime.
- Indirect impacts:
    - Potential adverse impacts on GB producers (beyond what the Pöyry welfare analysis has accounted for); and
    - Because these variations make interconnectors more likely to happen, they would give more flexibility options in hours of high renewable generation, instead of curtailment (positive) and a potential import from markets with higher emissions (negative).

3.27. To understand how our decision may affect these factors, we consider the optionality of our decision as well as any learning and capacity-related benefits that may occur in the future as a result of it. We also consider whether the options would 'lock-in' or 'lock-out' alternative interconnector development regime or technology solutions.

Assumptions

3.28. In estimating the cost of variations we have made three key assumptions as set out below and discussed the risks associated with them:

i. We have not updated the NPV consumer benefits and revenues estimated by Pöyry for Greenlink and NeuConnect. We have also not assessed the cost estimates provided by developers in their submissions to confirm whether

they are economic and efficient.[23] As the costs of Variations 2, 3, and 4 are mainly driven by where interconnector revenue sits relative to our updated cap and floor levels (to reflect projects' capex and opex costs and cost of variations), any significant changes in any of these factors would require that we revisit our analysis.

ii. We have made assumptions around the availability of the interconnector which may suggest that we may be overestimating or underestimating the cost of Variation 2. We are aware of events in the past few years around the outage of GB interconnectors that have lasted longer than the duration we have used in our analysis. We have assumed in our central scenario that the capacity of the interconnector is only able to generate revenue to cover 50% of the floor with consumer topping up the difference. The interconnector is assumed to be back to delivering above 80% capacity after two years.

iii. Under our central scenario, we have assumed that a reserve facility that is equivalent in amount to a 1-year floor payment would be adequate to address revenue shortfalls resulting from force majeure events not recognised by Ofgem and that lenders would accept a reserve facility provision in lieu of actual changes to force majeure definition under the default regime. If lenders would not accept this provision and we have undersized or oversized the reserve requirement, projects may not progress. Both of these outcomes are negative and would be bad for consumers.

3.29. In estimating the cost of project delays we have made two key assumptions as set out below and discussed the risks associated with them:

i. We have assumed a two-year delay in the connection date of both interconnectors under our central scenario and used the NPV benefits estimates provided in the Pöyry independent report. Cost of delay is driven by where interconnector revenue sits relative to our updated regime cap and floor levels (to reflect projects' capex and opex costs and cost of delays). We also compare how the annual benefit estimates (yearly profile of benefits) change in the scenarios where there is a 1-3 year delay relative to the default 25-year regime duration. Any significant changes in any of these factors would require that we revisit our analysis.

ii. We have taken a conservative view by assuming that a delay in a Window 1 project does not automatically lead to improvements in the benefits estimates of a Window 2 project. We consider that a full CBA and sensitivity analysis (around connection dates and interactions between projects) as set out in the Pöyry studies is necessary to be able to fully capture the cost of delays. Any changes in our approach for calculating the cost of delays leading to a significant change in our estimate would require that we revisit our analysis.

3.30. In estimating the expected consumer impacts of Options 2, 3 and 4, we have assumed that the two developers are similar and that the size of the projects or the differences in regulatory arrangements in the markets that the projects are proposed to link would not have an impact on how the developers respond under the options. The probabilities attached to each response outcome represent our initial view based on the evidence available to us. If the actual response from developers were to be significantly different, this would change our estimates.

[23] Our cost assessment process requires detail information from developers and is carried out at the FPA stage under the default regime. Both projects have yet to complete formal FPA submissions.

4. Impacts

This chapter presents our quantitative analysis of the direct and future impacts of the options on consumers. It also considers indirect and wider impacts of our options on consumers.

Summary of quantified consumer impacts

Cost of variations and delays

4.1. Table 5 below provides a summary of potential costs for Variations 1, 2, 3 and 4 for both the Greenlink and NeuConnect projects and three additional cap and floor projects that we assume may request similar regime variations in the future.

Table 5: Cost of variations for the Greenlink and NeuConnect projects and three additional cap and floor projects yet to raise required financing (£m, 2018/19)

Variations (NPV £m, 2018/19)	**Greenlink and NeuConnect**			**Three additional projects** (Long-term cost)	**All five projects**
	Low	**Central**	High	Central	Central
Variation 1	0	**0**	0	**0**	0
Variation 2	148	**275**	384	**1,154**	1,429
Variation 3	7	**11**	14	**137**	148
Variation 4	53	**102**	150	**259**	361
Total	208	**389**	548	**1,550**	1,939

4.2. The long-term cost of variations attributed to the three potential additional projects is calculated by applying the average ratio of cost of variations to consumer benefits based on our assessment of the Greenlink and NeuConnect projects.

4.3. Table 6 below sets out the cost of delays estimates for the four options under our central case. Cost of delays under our central case assumes a two-year delay. It is estimated by comparing the cap and floor levels and annual consumer benefits profile under the default regime (where projects become operational on time) against similar parameters when projects are delayed by two years. The length of the regime is not extended to accommodate the delay.[24]

[24] As a crosscheck, Pöyry's estimate of consumer impact of a 3-year delay to the three Window 2 projects are £659M, £623M, £593M (all in 2018/19 prices) - Cap and floor regime: Initial Project Assessment of the GridLink, NeuConnect and NorthConnect Interconnectors: https://www.ofgem.gov.uk/system/files/docs/2017/06/ofgem_window2_ipaconsultation_june_2017.pdf

Table 6: Cost of delays under our central case (£m, 2018/19)

NPV £m, 2018/19	Greenlink and NeuConnect			Three other projects		
	Option 2 (V_1)	Option 3 ($V_{1,2,3}$)	Option 4 ($V_{1,2,3,4}$)	Option 2 (V_1)	Option 3 ($V_{1,2,3}$)	Option 4 ($V_{1,2,3,4}$)
Cost of delay	520	520	505	1,677	1,675	1,610

4.4. To select the options, we shortlisted variations that had some support from potential lenders and our financial adviser and ranked them in order of importance based on costs and risks to consumers and supporting external views. The variations were then grouped in three combinations: 'do minimum' – Option 2; 'accepting variations that had a consensus view from lenders and our adviser' – Option 3; and 'accepting Variations 1, 2, 3 and 4' - Option 4.

Consumer impacts of Greenlink and NeuConnect

4.5. Our assessment of consumer impacts of Options 2, 3 and 4 relative to our counterfactual follows the steps provided in Section 3.13.

4.6. Consumer impact is calculated as the expected net benefits under each option following the formula set out below:

- Expected benefits (Impact) = A*p(A) + B*p(B) +C*p(C)+ D*p(D)

  Where:

  I. A, B, C and D are calculated as follow:

     - Pöyry benefits adjusted to reflect factors such as underlying cap and floor parameters and cost of onshore transmission reinforcements needed to accommodate the project[25] minus (-) (cost of variations + cost of delay); and

  II. p(A, B, C and D) is as set out in Table 3 in Chapter 2.

4.7. Table 7 below sets out the calculation steps for expected consumer impacts and the associated parameters.

Table 7: How we calculate consumer impact of options relative to counterfactual

Description	Parameters	Calculation
Benefits if projects go ahead	P	Adjusted Pöyry CBA estimate expressed in 2018/19 price base
Benefits if projects do not go ahead	Q	Zero
Cost if projects go ahead (cost of variations)	R	As set out above (Table 5)
Cost if projects are delayed	S	As set out above (Table 6)

[25] As set out in our Window 2 IPA consultation under 'summary of welfare impacts' for each project: https://www.ofgem.gov.uk/system/files/docs/2017/06/ofgem_window2_ipaconsultation_june_2017.pdf

Cost if projects do not go ahead	T	Zero
Probability range attached to each of four outcomes ('unable to raise project finance and do not go ahead'; 'delay but later built on balance sheet'; ' delay but later built under project finance'; and 'go ahead on time using project finance')	p(x)	As set out in Section 2 (Table 3)
Benefit under each outcome	V	[p(P) * P] + [p(Q) * Q]
Cost under each outcome	W	[p(R) * R] + [p(S) * S] + [p(T) * T]
Expected value under each option (impact)	X	V - W
Expected value of each option relative to counterfactual	Y	X - Z[26]

4.8. The results of our analysis following the steps set out above is presented in Table 8 below.

Table 8: Expected net consumer impacts of Option 2, 3 and 4 relative to Option 1 counterfactual for the Greenlink and NeuConnect projects (£m, 2018/19)

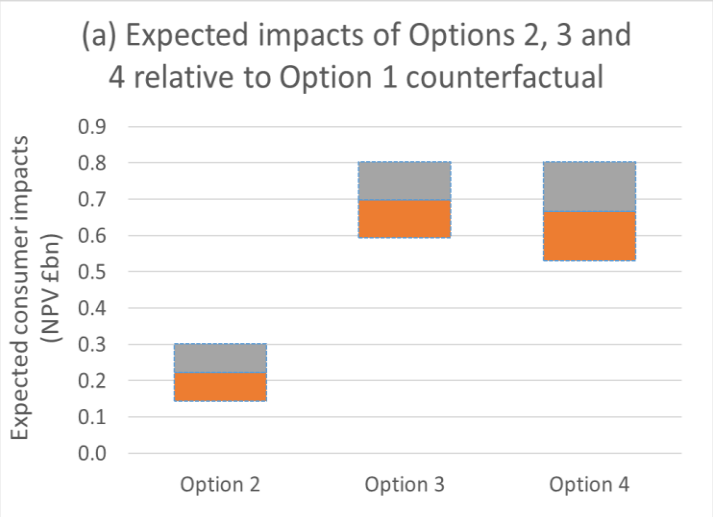
	Option 2 (Variation 1 only)	Option 3 (Variations 1, 2 and 3)	Option 4 (Variations 1, 2, 3 and 4)
Scenario 1	302	**802**	804
Scenario 2	144	**593**	530
Range (Scenario 1 – Scenario 2)	158	**209**	274

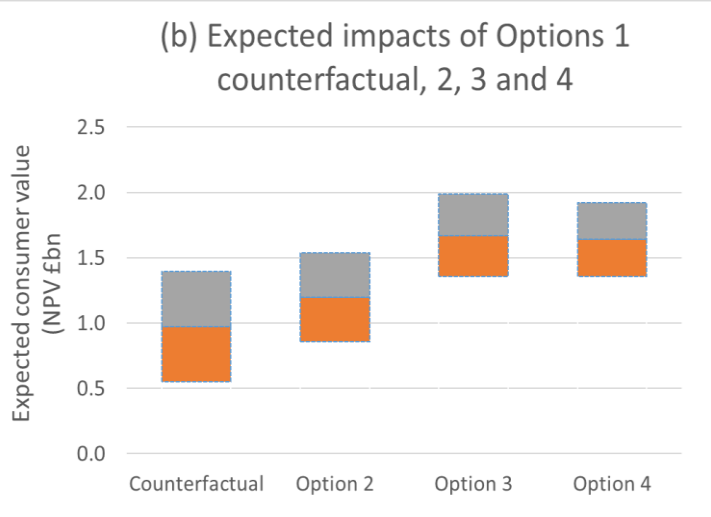
4.9. Based on the result presented in Table 8, Option 3 has total expected net benefits of £593million to £802million relative to the counterfactual. Whilst Options 2 and 4 also compare favourably to the counterfactual, Option 2 has a lower expected net consumer benefits range of £144million to £302million and Option 4 £530million to £804million. The uncertainty around estimates of net consumer benefits (relative to the counterfactual) under Option 4 is higher.

4.10. Charts 2 (a and b) below provide uncertainties and midpoint estimates for expected net consumer benefits under each options and relative to the counterfactual.

[26] Z: expected value under the counterfactual

Chart 2 (a and b): Expected range of net consumer impacts for the Greenlink and NeuConnect projects (£m, 2018/19)





4.11. The estimates in Table 8 above and Table 9 below are presented in Charts 2 (a and b) above.

4.12. More detail on expected net consumer benefits across the four options considered in this draft impact assessment is presented below in Table 9.

Table 9: Expected net consumer impacts of regime variations for the Greenlink and NeuConnect projects (£m, 2018/19)

	Option 1 (counterfactual)		**Option 2 (Variation 1 only)**		**Option 3 (Variations 1-3)**		**Option 4 (Variations 1-4)**	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Outcome A *(projects not built)*								
Expected net benefits	0	0	0	0	0	0	0	0
Outcome B *(delayed, built with corporate finance)*								
Expected net benefits	553	184	369	92	369	92	372	0
Outcome C *(delayed, built with project finance)*								
Expected net benefits	0	737	369	737	467	234	294	147
Outcome D *(built on time with project finance)*								
Expected net benefits	0	473	118	709	519	1,661	691	1,777
Total expected net benefits	**553**	**1,394**	**855**	**1,538**	**1,355**	**1,987**	**1,356**	**1,924**

Consumer impacts of additional three cap and floor projects that may seek project finance solutions in the future (long–term impacts)

4.13. We have also considered monetised long-term consumer benefits in a scenario where another three projects that have yet to raise required financing came forward with similar requests to support their financing plans.

4.14. Table 10 below provides a summary of the result. For these three additional projects, we estimate the long-term net consumer impacts (relative to the counterfactual) of between £1,991million to £3,303million for Option 4; £2,141million to £3,251million for Option 3; and £561million to £1,264million for Option 2.

Table 10: Expected net consumer impacts of Option 2, 3 and 4 for three additional projects that may seek project financing solutions in the future (£m, 2018/19)

NPV £m, 2018	Three additional projects		Three additional projects + Greenlink and NeuConnect	
	Consumer benefits based on Scenario 1	Consumer benefits based on Scenario 2	Consumer benefits based on Scenario 1	Consumer benefits based on Scenario 2
Option 2	561	1,264	705	1,567
Option 3	2,141	3,251	2,734	4,053
Option 4	1,991	3,303	2,521	4,106

Wider impacts

4.15. For a number of impacts within our options, we have not sought to carry out quantitative analysis but have considered these qualitatively. We have not estimated the impacts of our decision on cap and floor projects that have raised financing. We consider these impacts as negligible and as having a very low likelihood of occurrence as these projects have successfully raised financing - the limit to apply for regime variations.[27] We have discussed these impacts qualitatively as potential risks below.

4.16. We have also considered how each variation request may impact decisions we may make in the discharge of our regulatory duties:

Impacts if we broaden the default regime legal definition of force majeure: Beyond the consumer impacts captured in our quantitative analysis, consumers may be exposed to negative impacts if an amended and wider force majeure definition shifts the consumer developer risk balance in favour of developers and thus set a precedent for our regulatory decisions in the future. Conversely, if the definition is less than what is required to allow projects to raise required financing under the project finance route, this may lead to projects not being progressed which will be a negative outcome for consumers.

Impacts if we modify our policy on the default regime 80% MAT reliability standard for interconnectors: Providing more protection to lenders for unavailability could diminish the incentive for lenders to monitor the project and

[27] We have issued our FPA decision for three of the four cap and floor projects that have successfully raised financing.

provide adequate scrutiny. Consumers will be negatively impacted if granting this variation leads to the delivery of a below standard quality asset. However, this variation has a higher likelihood of impacting the financeability of projects as it may lead to projects not going ahead, or a likely higher cost of financing, which would also be a negative outcome for consumers.

Wider impact on consumers of using cost of debt achieved under a competitive market process to set default regime cap and floor levels: Approving this variation may lead to a higher cost of debt and therefore a higher floor level and payments by consumers. A higher floor means that consumers are more likely to top-up revenues to the floor. We note that the cost of debt financing under the default regime may not accurately reflect the risk that either consumers or developers face and that project finance offers the potential for the cost of debt used in the regime to be based on a competitive market process which should reveal lenders' views on the risk of financing interconnectors. Our notional cost of debt benchmark serves as a limit to the cost of debt that we consider is fair to consumers. It also keeps the incentive for developers to outperform the benchmark which would reduce their overall cost of financing relative to the benchmark.

4.17. Other wider impacts we have considered cover impacts on cap and floor projects; impact on consumers in vulnerable situations; impact on the environment; and the impact on Ofgem's administration and resources costs.

Impact on cap and floor projects: Regime variations may impact the risk balance in the default regime for projects that have successfully raised financing relative to projects benefitting from regime variations. We consider that any shifts in risk balance would be marginal or be balanced by other offsetting changes to the default regime that the two developers have proposed. For example, we may apply the cost of debt to the geared portion of RAV to set the floor (for projects benefitting from regime variations) rather than 100% of RAV as set out in the default regime. This would lead to a lower floor level relative to the default regime, keeping everything else fixed.

Regime variations would also impact the cost of debt for Greenlink and NeuConnect projects relative to the cost of debt for other cap and floors projects that will need to raise financing in the future. This is because accepting the variations offers the potential to broaden the range of financing solutions available to the Greenlink and NeuConnect which could lead to a lower cost of debt over time for future projects.

The impact of the options we have considered may be experienced differently by the two developers. This is because it may be easier for a smaller project to progress compared to a bigger project if the options are deemed by some lenders as less than what is necessary for them to lend to the projects. In this scenario, the smaller capex project may still be able to go ahead as fewer lenders would be needed to raise the target financing amount, keeping everything else fixed.

Impact on consumers in vulnerable situations: We have considered the impact of the options on individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas and other consumers in vulnerable situations. These consumers are impacted indirectly if our decision results in the interconnectors going ahead are being cancelled. Our assessment suggests that the efficient and cost-effective delivery of interconnectors would allow the import of lower priced electricity, thus lowering bills for all consumers. We note that interconnectors may also export to neighbouring markets when prices are higher in these markets. If GB interconnectors tend to import more when prices are lower in neighbouring markets, this would be expected to benefit consumers, keeping everything else fixed.

Impact on the environment: We expect the environmental effects from implementing the options to be indirect as our decision aims to broaden the range of financing solutions available to developers. The direct environmental impact of interconnectors themselves is outside the scope of this draft impact assessment. This assessment would have been provided in our IPA decision for the projects.

Impact on Ofgem's administrative and resources costs: Option 4 may result in marginally higher administrative and resource costs for Ofgem compared to the Options 1, 2 and 3. This is because under Option 4 Ofgem will have to oversee developers' financing arrangements to ensure that developers raise debt under a competitive market process. We would expect administrative and resources costs under Options 2 and 3 to be similar to our counterfactual and capable of being adequately managed under our business as usual arrangements.

Hard to monetise impacts

4.18. In this section, we assess impacts that are difficult to meaningfully monetise, very long-term or unpredictable, making them challenging to incorporate within a monetised cost-benefit analysis.

4.19. We have carried out qualitative assessment of hard-to monetise impacts of the options under consideration as set out below in Table 11. We focus on impacts on Ofgem's mid-term strategic and long-term sustainability aims as set out in our Impact Assessment Guidance. The impacts of some of these factors relate to increased likelihood of more interconnectors progressing to operation (as a result of project finance variations), rather than the impacts of the specific variations themselves.

Table 11: Hard to monetise impacts

Factor	Mid-term strategic	Long-term sustainability	
	Optionality: this involves the evaluation of specific, realistic options that may be enabled or prevented by our decision.	**Learning by doing:** considers that there can be potential savings in cost by one party going through a process and passing that learning onto others. This can result in a more efficient process via sharing of 'learned efficiencies'.	**Lock-in or lock-out of financing pathways:** covers how our decisions today can make certain desirable options in the future unachievable.
Positive investor confidence may enable competition and innovation in the development and financing of interconnectors, and could drive down prices for consumers.	Our regime variation policy allows for project specific decision. Therefore this decision keeps other options open to help us accommodate future uncertainty or change in direction.	Broadening the range of financing could allow new investors to enter the market with innovative projects that may otherwise not be developed. This would help future projects and consumers in the long run.	It is difficult to assess to what extent any regime variation decision we make in the future will be contingent on the decision we make today and our capacity to move away from the current options under consideration.

Reduced net consumer benefits if variations crowd out balance sheet developers from developing projects under the default regime.	Potential to crowd-out domestic generator.	N/A	Our decision should not lock out other types of financing that are already possible under the default regime.
Project delays and cancellation which could result if developers are not able to raise required financing to progress projects on time.	Regime variations aim to broaden the range of financing solutions available to developers and therefore provide more options to developers to raise required financing.	It is unclear to what extent the options under consideration in this draft impact assessment may lead to projects progressing on time and how this experience could be used to inform future decisions.	We expect that a broader range of financing solutions will provide more options for developers to progress projects on time using the most efficient financing solutions.
Potential adverse impacts on GB producers (beyond the level accounted for in Pöyry's analysis).	Additional interconnection could provide flexibility options in hours of high renewable generation, instead of curtailment (positive impact); and/or a potential import from markets with higher emissions (negative impact)	N/A	Enabling more interconnection could indirectly lock out other potential competing technology solutions.

5. Summary of our preferred option

This chapter sets out the summary of our preferred option and our assessment of risks and uncertainties surrounding the impacts of our preferred option. It also sets out a high level implementation plan.

Our preferred option

5.1. Based on the balance of costs, benefits and risks as set out in this draft impact assessment, **we consider that Option 3 offers the best trade-off for consumers**. Our choice of Option 3 is in line with our overarching principle which aims to improve outcomes for consumers without transferring too much risk to them.

5.2. Option 3 has expected NPV consumer benefits relative to the counterfactual of £593million to £802million as set out in Table 8 and Chart 2 (a). Variations 1, 2 and 3 which make up Option 3 were all broadly viewed by lenders as important for attracting a broader range of lenders.

5.3. Project finance lenders broadly supported reducing the assessment period to one year to align with the annual debt repayment cycles that developers expect lenders would require and to address the issue of 80% MAT and force majeure.

5.4. Option 3 should help make the regime more attractive to more lenders and thus widen the range of financing solutions available to developers. We think this should allow projects to be able to raise the required financing to progress in a timely manner. The timely progress of both projects should keep development and construction costs down and benefit consumers.

5.5. Details on the step by step calculation process that we followed to estimate the expected NPV consumer benefits and is provided in Section 4.

5.6. We note that the results in this analysis are driven by the assumptions we have made at this stage with obvious limitations. Also, our assessment only covers aspects that we are able to quantify and does not capture non-monetised aspects which we have discussed qualitatively.

Risks and uncertainties

5.7. The requests considered throughout this draft impact assessment are difficult to assess, meaning that some elements of the impacts can only be assessed qualitatively. Additionally, for those areas where we provide quantification, our analysis and the estimates are driven by the assumptions we have made at this stage and based on information and evidence currently available to us.

Risks

5.8. The main risk of approving the variations is that the risk allocation balance between developers, their contractors and consumers would change (likely in developers' favour). Whether this impact leads to an optimal balance overall is difficult to know at this time, because so far, no GB electricity interconnector has raised financing through project finance solutions.

5.9. We have considered the risks of whether the options we have examined would be sufficient for developers to raise required financing to progress projects. Project

delays or cancellations could result in considerable consumer impacts. Other factors (which we have not considered), such as potentially higher construction costs due to delays, lost consumer benefits or sunk costs in the case of non-delivery could have negative impacts on consumers.

5.10. If the cost of variations (as set out in Table 5) were higher than the range that we have considered, then there would be a greater risk that our impact assessment would need to be updated. Conversely, if the cost was lower than the range we have considered, the case for Options 3 and 4 would be stronger relative to Option 2 and the counterfactual.

5.11. Another risk factor is the long-term consumer impact if other cap and floor projects requested different sets of variations (relative to the set we have considered in this impact assessment). We consider this risk as being unlikely or marginal as these projects would be seeking to raise project financing from some of the lenders we engaged. It is also unlikely that cap and floor projects which have successfully raised financing would be eligible to apply for regime variations as most of them have passed our FPA stage - the relevant window to apply for regime variations. We also do not expect any future projects to be approved under the default regime without a comprehensive review of the cap and floor regime.

5.12. We have carried out a qualitative analysis of the hard-to monetise impacts of our preferred option. However, the scale of these impacts is difficult to establish. It is challenging to fully understand whether the balance of risks and benefits (taking into account monetised and hard to monetise benefits) is better under other options relative to our preferred option.

5.13. We consider that some of these risks may be somewhat mitigated through considering additional evidence that may become available to us after the close of this draft impact assessment consultation and updating our assessment accordingly.

Uncertainties

5.14. Variations to the default cap and floor regime are likely to lead to a complex response by developers and potential financial providers which are difficult to predict. Whilst this draft impact assessment is based on the evidence available to us, there is uncertainty regarding our methodology for estimating the cost of variations and cost of delays and whether developers' and lenders' response in practice will align with the probabilities that we have modelled (presented in Table 3).

5.15. To reflect some of these uncertainties, we based our expected benefit assessment on the central scenario with a further scenario analysis applied to this central scenario to capture how we think developers would respond to Options 2, 3 and 4. To capture developers' responses, we model probability ranges under two scenarios for four response outcomes (A, B, C and D) as set out in Section 3.

5.16. Our probability estimates reflect the following expected outcomes: A) without variations, developers may struggle to raise required financing and projects may not to go ahead; B) projects are likely to go ahead with delays using balance sheet financing; C) projects are likely to go ahead with delays under the project finance route; and D) projects are likely to go ahead on time under the project finance route. The result of this scenario analysis on the expected NPV consumer benefits is presented in Table 8 in Section 4.

5.17. Our view is based on conclusions we have drawn from our discussions with developers and potential lenders and are therefore indicative. We note that it is difficult to estimate such probabilities accurately and a potentially unlimited number of factors might come into play which are difficult to predict in advance. Also, our

analysis is sensitive to many elements of the wider environment in which interconnector developers operate. For example, the market environment in which financing and insurance activities for force majeure events are carried out.

5.18. We are seeking stakeholder views on our approach and any extra evidence that may be useful to us in making a decision on the regime variation requests. If consultation responses suggest that we should revisit our assumptions and analysis, we would consider this new evidence and update our assessment accordingly.

5.19. To reflect uncertainties around the costs of variations, we have undertaken this impact assessment by considering how these costs may vary across three scenarios (low, central and high). We have presented the result of this analysis in Table 9, Section 4. The scenarios are based on the assumptions discussed above and are aimed at assessing a reasonable range of outcomes for the costs of variations. More detail on the three scenarios is set out in Table 5, Section 4.

5.20. We have also tested extreme cost by varying the cost of variations to see how the expected net consumer benefits change across the options. The result is provided below in Table 12.

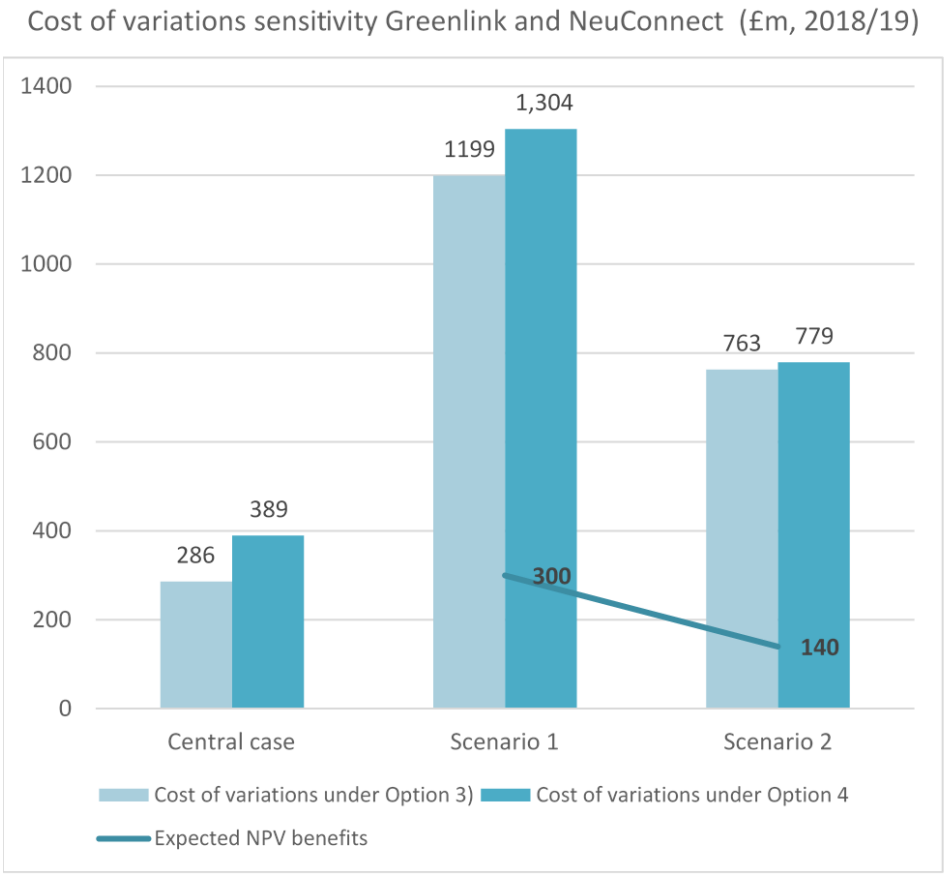
5.21. Table 12 provides the range at which the cost of variations would have to increase (over the cost of variations assumptions under our central scenario) to make Option 2 look better from the perspective of NPV consumer benefits, keeping everything else fixed.

Table 12: Expected net consumer benefits sensitivity to extreme increase in cost of variations for the Greenlink and NeuConnect projects (£m, 2018/19)

NPV £m, 2018/19	Greenlink and NeuConnect		
	Option 2	**Option 3**	**Option 4**
Expected net benefits under our central case	144 to 302	593 to 802	530 to 804
Cost of variations under the central case	0	286 to 389	286 to 389
Expected net benefits subject to extreme cost of variations increase	144 to 302	**140 to 300**	**140 to 300**
Cost of variations assumed for this sensitivity	0	763 to 1,199	799 to 1,304
Cost of variations assumed for this sensitivity (relative to the central case)	0	477 to 913	390 to 915

5.22. The estimates in Table 12 above is presented below in Chart 3. Variations costs under Option 3 would have to increase to a range of £763million to £1,199million to make the expected net consumer benefits under Option 2 (£144million to £302million) look better, keeping everything else fixed. Under this extreme cost assumptions, the expected benefits under Option 3 would decrease from a range of £593million to £802million as presented in Table 12 to a range of £140million to £300million. Similarly, the cost threshold that would make Option 4 look slightly worse relative to Option 2 (from the perspective of NPV consumer benefits only) is £799million to £1,304million.

Chart 3: Extreme cost of variations based on probability Scenarios 1 and 2 for both Options 3 and 4



5.23. Option 4 is unlikely to look better than Option 3 because Variation 4 is approved under Option 4 but not under Option 3. In a scenario where the cost of Variation 4 (using the actual cost of debt achieved in a competitive market process to set revenue floor levels) turns out to be lower than the default regime iBoxx notional cost of debt, then Option 4 would theoretically look better than Option 3, everything else being fixed. We note that in this scenario, any benefits coming from developers being able to achieve a lower cost of debt relative to the notional iBoxx index would also apply under Option 3. This is because the default regime already incentivises developers to outperform the iBoxx index.

Implementation plan

5.24. The implementation plan for our preferred option would involve changing our default regime policy for the Greenlink and NeuConnect projects to reflect the requested Variations 1, 2 and 3 as set out in Option 3.

5.25. These changes would be set out in the special licence conditions issued to both projects and also reflected in the cap and floor financial models that will be used to calculate the cap and floor levels and in assessing revenues during the operational period.

6. Next steps, monitoring, evaluation and feedback

This chapter describes the next steps and our monitoring, evaluation and feedback plans.

Next steps

6.1. We are keen for stakeholders to respond with their views and evidence to the analysis presented in this draft impact assessment. We would also welcome responses to questions posed in the accompanying consultation document in Appendix 3.

6.2. We will aim to issue an updated impact assessment and a decision in early 2020. This would allow developers to progress discussions on financing arrangements with lenders and help them meet our default regime timelines.

Monitoring

6.3. We recognise that our preferred option may impact both developers differently and lead to different responses by them. It would also have different impacts on other developers yet to raise financing for their projects or those that have already done so. As a result, we encourage responses from stakeholders and developers.

6.4. We will monitor and review the responses to this draft impact assessment and the consultation document at the end of the consultation period. We would also continue engaging with stakeholders and developers in the months following our consultation publication date to help shape our decision on the variation requests.

Evaluation and feedback

6.5. To find out how successful our preferred option has been, and to ensure we have a strong base of evidence for future policy development, where possible we will seek the following:

- determining whether our preferred option has contributed to broadening the range of financing solutions available to cap and floor interconnector developers and the extent of this impact;
- understanding the minimum changes that are required for projects to raise required financing; and
- understanding better the risks to consumers of each aspect of the regime variations and being able to accurately estimate these risks.

6.6. Given that our decision is important for developers and lenders, we will continue to engage with them closely to better understand which changes would best achieve our policy objectives.