Making a positive difference
for energy consumers

Electricity interconnector
developers and other interested
parties

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Date: 11 May 2016

Dear stakeholders,

Cap and floor regime summary for the second window

In November 2015 we published our decision to open a second cap and floor application window for electricity interconnectors. That window opened on 31 March 2016 and will close on 31 October 2016. The purpose of this letter is to aid developers applying in the second window by providing a single updated and consolidated statement of the default cap and floor regime that will apply. Alongside this letter, we have also published an updated cap and floor financial model.[1]

Background

Ofgem has created the cap and floor regime in order to encourage investment in electricity interconnectors. It strikes a balance between commercial incentives and appropriate risk mitigation for project developers. It sets a maximum (cap) and minimum (floor) amount of revenue for an interconnector. There is a wide band of 'merchant' exposure between the cap and the floor. The regime sits alongside the exemption route to invest in interconnectors (whereby project developers apply for exemptions from aspects of European legislation).[2]

A number of projects have already been granted a cap and floor regime:

- The Nemo Link project to Belgium was granted a cap and floor regime in December 2014. Nemo Link is the pilot project around which the cap and floor regime was developed.
- The NSL project to Norway, IFA2 project to France, FAB project to France, Viking project to Denmark and Greenlink project to Ireland all applied in the first window and were granted a cap and floor regime in principle in 2015.[3]

[1] This has the filename: standard interconnector model 20160401_BDO Audit FINAL_250416 ammendment.xlsx. The audit letter from BDO has also been published alongside.
[2] Investments in new direct current interconnectors may, upon request, be exempted for a limited period of time from the following provisions in the EU legislation: use of revenues, under Article 16(6) of Regulation 714/2009, and from the following Articles of Directive EC/2009/72: unbundling (Article 9), third party access (Article 32) and approval of tariffs (Articles 37).
[3] To be granted a cap and floor regime 'in principle' means that the project has passed the initial project assessment (IPA) stage and must now meet a number of conditions attached to our IPA decision and successfully complete the final project assessment (FPA) stage.

In November 2015, we published our decision to open a second cap and floor application window for electricity interconnectors.[4] That window opened on 31 March 2016 and will close on 31 October 2016.

Regime overview

The cap and floor regime is a regulatory regime with incentives that retains a wide band of merchant exposure. The cap and floor regime sets a maximum (cap) and minimum (floor) level to the revenues accrued by interconnector developers.

Developers will sell the capacity of their interconnector in line with the requirements of the Third Energy Package, and in particular European network codes. Developers may also access additional revenue streams, such as from participating in the GB capacity market and providing ancillary services.

The width between the cap and floor is designed so that developers are exposed to the benefits provided by the interconnector and so are incentivised to identify and develop projects in a way that maximises these benefits, whilst ensuring that costs are incurred efficiently.

The cap on revenues provides an investment route that ensures projects are compliant with use of revenues requirements set out in EU legislation, and allows developers to receive appropriate, but not excessive, returns.[5] Granting projects a revenue floor underwritten by consumers reflects that it is in consumers' interests for more interconnector capacity to be built. Granting a revenue floor is therefore contingent on our assessment of the benefits a project provides for consumers.

The regime is a cost-based regime; both the cap and the floor are determined by applying financial parameters to the efficient costs of developing and operating a project.

The cap and floor levels are built from building blocks of capital costs, operations and maintenance costs, decommissioning costs, tax and allowed return.

The levels of the cap and floor are set before operation and remain fixed in real terms (ie only increasing with inflation) for the 25 year duration of the regime, unless specific re-openers are triggered. The 25-year length of the regime aims to provide a clear, long-term framework to support investment.

If revenues fall below the floor over an assessment period then the interconnector will be "topped up" to the floor level by National Grid Electricity Transmission (NGET) as the system operator, which will in turn recover the costs through increased transmission charges to transmission users. This is only paid if the interconnector has been sufficiently available over that time.

The cap limits the maximum revenue that developers can retain, but it doesn't limit the actual revenue generated by flows on the interconnector. Any revenue above the cap in an assessment period is paid by the interconnector to NGET as the system operator, which will in turn reduce charges for transmission users. The cap level is increased or decreased by up to +/- 2%, depending on the availability of the interconnector over the assessment period.

This process is illustrated in Figure 1 on page 3 of this letter.

[4] Decision to open a second cap and floor application window for electricity interconnectors in 2016: https://www.ofgem.gov.uk/publications-and-updates/decision-open-second-cap-and-floor-application-window-electricity-interconnectors-2016

[5] Article 16(6) of Regulation 714/2009 describes how revenues generated from interconnector capacity allocation should be used.

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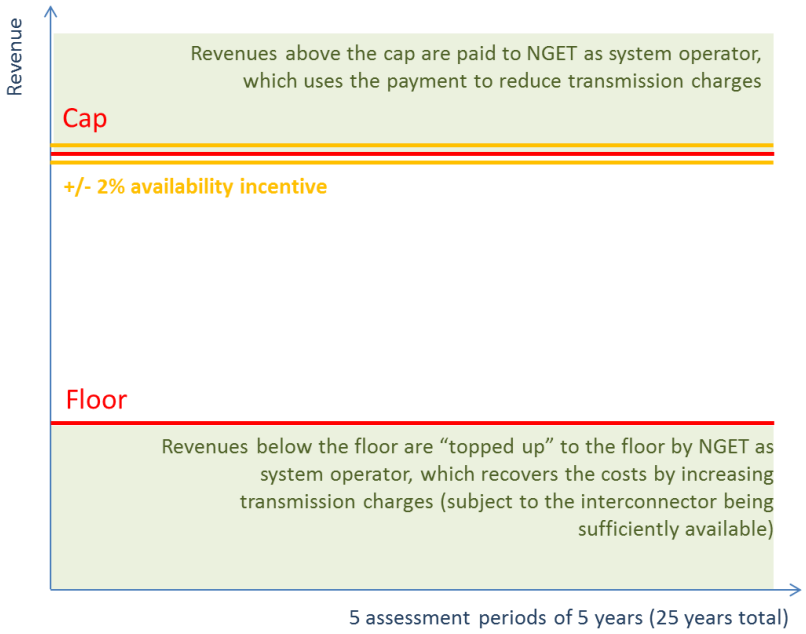
The default regime is further explained in Annex 1, and our default processes are explained in Annex 2. Developers may request project specific variations (to both the regime and processes) to reflect individual circumstances, provided they can demonstrate how these variations would be in the interest of GB consumers. Developers considering requesting variations to the financial aspects of the regime should refer to our guidance letter published in December 2015 and the second window application guidance for further information.[6,7]

Annex 3 sets out additional resources for interested parties.

Figure 1: cap and floor regime illustration



Alongside this letter, we have also published an updated Cap and Floor Financial Model. A project-specific version of this model is used to set the cap and floor levels for individual projects and determine any cap and floor payments.

If you have any questions or queries relating to the content of this letter then please contact Laura Edwards on 0207 901 7249 or cap.floor@ofgem.gov.uk.

Your faithfully,

Rob Mills
Head of Commercial and Investment

[6] Enabling a range of financing solutions under the cap and floor regime: https://www.ofgem.gov.uk/publications-and-updates/enabling-range-financing-solutions-under-cap-and-floor-regime
[7] Decision to open a second cap and floor application window for electricity interconnectors in 2016: https://www.ofgem.gov.uk/publications-and-updates/decision-open-second-cap-and-floor-application-window-electricity-interconnectors-2016

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Annex 1: Cap and floor – summary of the default regime for the second window

The following tables set out detailed information on the default cap and floor regime design.

- ***Table 1: key regime features*** sets out the key features of the regime.
- ***Table 2: calculating the cap and floor levels*** sets out how the cap and floor levels are calculated.
- ***Table 3: assessing interconnector revenues*** sets out how an interconnector's revenue is determined for the purposes of assessing it against the cap and floor levels.

Below Table 3, we also set out further information on our approach to foreign exchange risk.

Table 1: key regime features

Regime duration and cap and floor start dates	• The regime duration is 25 years.
	• The regime start date will be the earlier of the following:
	  ○ the actual 'full commissioning date'
	  ○ 12 months after the target (ie expected) completion date.
	• The cap level will come into effect automatically on the regime start date.
	• The floor level will come into effect on the full commissioning date.
	• Tests will be applied to identify the full commissioning date, and will include the completion of commissioning tests and procedures in line with good industry practice and the completion of a satisfactory proving period.
	• If a force majeure occurs during construction and leads to construction delays, then Ofgem may delay the regime start date accordingly.
	• Ofgem may also specify a floor start date ahead of the full commissioning date.

Amount of project covered by the regime	• The GB cap and floor regime will cover 50% of the project (meaning 50% of total project costs and 50% of total project revenues).
Cap and floor levels	• The cap and floor levels will be fixed in real terms for the regime duration, subject to specific adjustments and incentives set out in Table 2, below.
Interconnector revenues	• All sources of interconnector revenue will be taken into account for assessment against the cap and floor levels. • Certain 'market related costs' will be netted off revenues before comparison against the cap and floor levels (this gives the 'assessed revenue'). • Further details are in Table 3, below.
Assessment period (assessing whether interconnector revenues are above the cap or below the floor)	• Each assessment period is five years. This means that the interconnector's 'assessed revenue' will be compared to the cap and floor levels on a net present value (NPV) neutral basis, every five years. • Each five-year assessment period shall be considered in isolation, with no carry overs between assessment

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	periods.
	• Where the interconnector's revenue is below the floor or above the cap (on a cumulative basis) during an assessment period, the developer may request a 'within-period adjustment' on the grounds of:
	  ○ financeability; or
	  ○ pre-empting a material end of period adjustment.
	Such a request can cover from year 1 up to year 4 of any five-year assessment period, but must reflect whole years only (not partial years).
	Ofgem cannot request a within-period adjustment (ie only the developer can trigger a within-period adjustment).
	• Any within period adjustment will be subject to a true-up on a NPV neutral basis at the end of the relevant assessment period.
	• The discount rate applied for the NPV-neutrality calculations (the operational discount rate) will be the simple arithmetic average of the floor return and the cap return (the calculations of these are set out in Table 2 (f), below).

Regulatory reporting	• Developers will be required to report annually during the operational phase on revenues, availability and costs. • Developers will also be required to report during construction on construction progress and costs. • This reporting must be in line with the 'regulatory instructions and guidance' (RIGs) issued by Ofgem.
Cap and floor payments	• Cap and floor payments will be made between the developer and NGET as the system operator and will be recovered/distributed via the prevailing transmission charging arrangements.
Currency	• The cap and floor levels will be set in Sterling.

Table 2: calculating the cap and floor levels

2(a) – key principles for the cap and floor levels	
Building blocks approach	• The cap and the floor levels will be built from building blocks of capital costs, operations and maintenance costs, decommissioning costs, tax and allowed return. • The cap and floor levels will be profiled so that they are flat over time in real terms.
Indexation of the cap and floor levels	• We recently invited views from stakeholders on a move from the retail prices index (RPI) to the consumer prices index (CPI) as an inflation index.[8] We decided not to alter the default regime, meaning that developers applying in the second window will have their cap and floor levels indexed by RPI as a default.

[8] More information on this topic is contained in our October 2015 letter regarding indexation of future Offshore Transmission Owner and Interconnector licensees: https://www.ofgem.gov.uk/sites/default/files/docs/2015/10/open_letter_indices_14oct_finalv2_0.pdf

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	• However, developers may request a variation to the regime to allow for alternative indexation, such as CPI, in their submissions. We will consider such proposals alongside all other elements of consumer value when determining whether to grant a cap and floor.[9]
Availability incentive	• The cap level will be adjusted annually by up to +/-2% if interconnector availability exceeds or falls short of a target availability level. This means that availability above (or below) the target level will result in a one-for-one percentage increase (or decrease) in the cap level, up to +/- 2%. • The target availability level (in MWh) will be set by Ofgem on a project by project basis according to an established methodology.[10] • Developers will lose automatic eligibility for floor payments for each individual year if availability is below 80% in that year. • Ofgem will retain the discretion to reinstate eligibility for floor payments if the outage that caused availability to fall below 80% was caused by an 'exceptional event' (eg force majeure). • We do not expect force majeure events to occur. But should they occur, we expect developers to respond efficiently and return assets to service as soon as practicable (in line with good industry practice).
Table 2(b) – approach to capital costs	

Capital costs	• Capital costs are defined as the following items:
	  ○ development expenditure (devex)
	  ○ construction capex
	  ○ spares
	  ○ replacement (life-cycle) expenditure (repex)
	  ○ interest during construction (IDC)
	  ○ financial transaction costs
	Combined, these items give the regulatory asset value (RAV) which reflects the cost of building the interconnector.
	• Allowances for capital costs will be determined by either a cost assessment or benchmark approach, as follows:
	  ○ allowances for devex, construction capex, spares and repex will be determined by cost assessment. This means we will consider the developer's actual costs and undertake an assessment of the efficiency of those costs (we will only allow efficient costs). This will include a public consultation.
	  ○ IDC and financial transaction costs will be determined by applying a benchmark approach (discussed further below).
	• Capital costs allowances will be determined at three principal stages:

[9] More information is contained in our March 2016 decision letter on indexation: https://www.ofgem.gov.uk/system/files/docs/2016/03/decision_letter_ofgem_indexation_310316_final.pdf

[10] This will be based on the SKM methodology, available here: https://www.ofgem.gov.uk/sites/default/files/docs/2013/03/skm-report---calculating-target-availability-figures-for-hvdc-interconnectors_0.pdf

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	○ the Final Project Assessment (FPA stage), undertaken before construction ○ the project's Final Investment Decision (FID), where we update the relevant financial parameters ○ the Post Construction Review (PCR) stage, undertaken after construction. • Further information on our processes around the FPA, FID and PCR stages is set out in Annex 2 of this letter.
Interest During Construction (IDC)	• IDC will be treated as a capital cost incurred in the construction phase. • IDC for construction delays will not be included. • The IDC rate (%) is calculated as follows: $$IDC = WACC + DRP + CRP$$ Where: WACC = weighted average cost of capital (see below) DRP = development risk premium CRP = construction risk premium • The WACC during construction is calculated as follows: $$WACC = CoD \times G + CoE \times (1 - G)$$ Where: CoD = cost of debt (%) G = assumed (notional) gearing level CoE = cost of equity (%) • The cost of debt and equity will be calculated as per Table 2 (f) below. • The development risk premium, construction risk premium and notional gearing will be determined by Ofgem in accordance with an established methodology. Our current methodology is described in our May 2014 consultation document and the December 2014 Nemo decision document and may be updated from time to time.[11] If we update the methodology, this will include public consultation. • The IDC (%) will be determined at the FID stage. The final allowance (£) will reflect the final RAV at the PCR stage (initial values will also be specified at the FPA and FID stages).
Financial transaction costs (costs of raising finance)	• An allowance for financial transaction costs will be determined by Ofgem in accordance with an established methodology. Our current methodology is set out in our May 2014 consultation document for the first window and may be updated from time to time.[12]

[11] The May 2014 consultation document is available here: https://www.ofgem.gov.uk/sites/default/files/docs/2014/05/regulation_future_interconnection_cap_and_floor_0.pdf and the December 2014 Nemo decision document is available here: https://www.ofgem.gov.uk/sites/default/files/docs/2014/12/final_cap_and_floor_regime_design_for_nemo_master_-_for_publication_1.pdf. Together, these documents specify 0.54% for the development risk premium, 0.91% for the construction risk premium and 33.41% for the notional gearing.

[12] The May 2014 consultation document is available here: https://www.ofgem.gov.uk/sites/default/files/docs/2014/05/regulation_future_interconnection_cap_and_floor_0.pdf It sets out an allowance of 2.5% on notional gearing for debt and 5% on notional equity. Here, we assume 50% notional gearing during the operational phase and we use the gearing assumption from the IDC calculation during the construction phase.

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	If we update the methodology, this will include public consultation. • The financial transaction costs (%) will be determined at the FID stage. The final allowance (£) will reflect the final RAV at the PCR stage (initial values will also be specified at the FPA and FID stages).
Financial assistance	• Any grants will be netted off the project investment costs that are used to set the cap and floor levels.
Depreciation and annuitisation of capital costs	• Capital costs will be depreciated on a straight line basis over the 25 years of the regime. • This will then be annuitised to make the cap and floor levels constant in real terms over the regime.
Table 2(c) – approach to decommissioning costs	
Decommissioning costs	• The developer will provide a forecast of decommissioning costs and we will undertake an assessment of the efficiency of the proposed costs (we will only allow efficient costs). • A 'baseline' allowance for decommissioning costs will be included in the cap and floor levels. This baseline allowance will reflect the legislative requirements relating to decommissioning the interconnector that are in place at the FPA/PCR stage. • Should changes in legislative requirements related to decommissioning occur, this will be treated as 'non-controllable'. This means that, should the developer become exposed to additional (or reduced) costs as a consequence of the change in legislative requirements, the difference in costs will be passed through as an adjustment (whether upwards or downwards) of the cap and floor levels. We will undertake an assessment of the difference in cost (we will only allow efficient costs). • Where consumers have incurred decommissioning costs for the interconnector (above cap/below floor), these will be taken into account in future decisions on the operation of the interconnector beyond the 25 years regime, and the regulation to be applied to the interconnector at that time.
Table 2(d) – approach to operating costs	
Operating costs	• The developer will provide a forecast of operating (including maintenance) costs and we will undertake an assessment of the efficiency of the proposed costs (we will only allow efficient costs). • Operating costs may be reviewed and re-set once during the regime and no earlier than 10 years into the regime. Either party (the developer or Ofgem) may trigger the review. This may lead to adjustment (upwards or downwards) of the cap and floor levels.

Non-controllable operating costs	• Certain operating costs will be treated as 'non-controllable'.
	• These are defined as:
	  ○ The Crown Estate lease fees
	  ○ property rates and property taxes
	  ○ licence fees, and

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	○ network rates. • A 'baseline' allowance will be included in the cap and floor levels. This will reflect Ofgem's determination of the economic and efficient costs for these items at the PCR stage. • Any changes in the economic and efficient costs for these items relative to the baseline allowance (whether upwards or downwards) will be passed through as a revenue adjustment at the end of each five-year assessment period. This will be done regardless of where the interconnector's revenue is in relation to the cap and floor levels.
Force majeure events	• If, during the regime, the developer experiences a force majeure event, it may claim efficient costs caused by the event (eg repair costs). • Where developers make a claim, we will undertake an assessment of the efficiency of the costs (we will only allow efficient costs). • If we accept that the interconnector has incurred costs as a consequence of a force majeure event, the costs will be netted off the interconnector's revenue for the purposes of assessing against the cap and floor levels (to the extent that the net figure is not less than zero). • This will be given effect in the licence as an "income adjusting event".
Table 2 (e) – approach to tax	
Tax	• Allowances for tax at both the cap and the floor will be determined using the UK tax regime. • Tax will be annuitised and added to the annuitised cap and floor levels of all costs other than the tax allowance. • Allowances for tax (%) will be determined at the FID stage. The final allowance (£) will reflect the RAV at the FPA stage (there will be no re-opener for changes RAV at the PCR stage). • For the avoidance of doubt, there will be no re-openers for changes to tax treatment.
Table 2 (f) – approach to returns	
Cost of debt (return at the floor)	• An allowance for a return at the floor will be calculated by applying the cost of debt benchmark to 100% of the RAV. • The benchmark will be calculated using a 20-day trailing average of the GBP Non-Financial iBoxx index of bonds with 10+ years to maturity, with a credit rating of A/BBB. Inflation will be based on 10-year breakeven inflation data published by the Bank of England. • As a default the RPI index will be used, although as noted in Table 2 (a), developers may propose alternative indexation. • The return at the floor (%) will be determined at the FID stage. The final allowance (£) will reflect the final RAV at the PCR stage (initial values will also be specified at the FPA and FID stages).

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Cost of equity (return at the cap)	• An allowance for a return at the cap will be determined as the cost of equity, calculated in accordance with the capital asset pricing model (CAPM) as follows: $$CoE = RFR + MRP \times EB$$ Where: CoE = cost of equity (return at the cap) RFR = the risk free rate = the 10 year trailing average of real zero coupon Gilts MRP = the market risk premium EB = the equity beta. • The market risk premium is calculated as follows: $$MRP = TMR - RFR - RPIA$$ Where: MRP = the market risk premium TMR = the total market return, taken from Credit Suisse RFR = the risk free rate RPIA = the RPI adjustment, taken from the Office of National Statistics (ONS)[13] • The equity beta is derived by Ofgem from comparator companies in accordance with an established methodology. Our current methodology is set out in our 2014 consultation document for the first window and may be updated from time to time.[14] If we update the methodology, this will include public consultation. • The return at the floor (%) will be determined at the FID stage. The final allowance (£) will reflect the final RAV at the PCR stage (initial values will also be specified at the FPA and FID stages).
Re-financing	• Re-financing gains (or losses) will be retained by the developers.

Table 3: assessing interconnector revenues

Interconnector revenue	• All sources of interconnector revenue will be taken into account for assessing against the cap and floor levels. This includes, for example, revenue from:
	  ○ capacity allocation in accordance with European network codes
	  ○ capacity market
	  ○ provision of ancillary services
	• Revenues as a result of products/services sold in both GB and the partner country will be included.
	• Receipts that substitute revenue will also be included, for example:
	  ○ business interruption insurance
	  ○ constraint payments.

Market related costs	• 'Market related costs' will be netted off revenues before

[13] As noted in table 2 (a), developers may propose alternative indexation
[14] The May 2014 consultation document is available here: https://www.ofgem.gov.uk/sites/default/files/docs/2014/05/regulation_future_interconnection_cap_and_floor_0.pdf It sets out an equity beta of 1.25, derived from Drax.

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	comparison against the cap and floor levels, to the extent that the net figure is not less than zero. • Market related costs are defined as: firmness costs (under the capacity allocation and congestion management (CACM) European network code), error accounting costs and trip contract costs.
Low availability years	• In years where the developer has not achieved 80% availability, only revenues above the floor level will be carried over into the assessment of revenues against the floor level. • All revenue shall be taken into account for assessment against the cap level.

Approach to foreign exchange risk

We recognise that developers will adopt different approaches for paying contracts in foreign currency or for agreeing volatile commodity prices. Ofgem considers that the efficient and economic approach to major contracts with foreign exchange or commodity price exposure is to hedge the payment. Hedging can avoid the developer incurring higher costs than anticipated, and ultimately protects consumers against the cost increases that could otherwise occur. We therefore encourage hedging of contracts, and hedging of underlying contracts at special purpose vehicle (SPV) level where possible.

Two courses of action, or a combination of these two, can constitute hedging. These are either: the forward purchase of currency to be used to pay invoices; or, taking out an option (or similar financial instrument) to purchase currency at a pre-agreed rate.

Developers should note we expect to publish an update to our guidance on hedging for the offshore transmission regime in late spring 2016. Interconnector developers may find this a useful reference point for considerations in the cap and floor regime.

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Annex 2: Cap and floor - summary of the default assessment processes for the second window

This annex sets out the default cap and floor assessment process. It explains the three key stages by which we determine whether to grant a project a cap and floor regime, and if so, set the cap and floor levels.

These stages are:

- the initial project assessment (IPA) stage, which is focused on assessing the 'needs case' for a project, ie the value it provides for GB consumers and other stakeholders
- the final project assessment (FPA) stage, which is focused on assessing the technical design and the efficiency of the developer's costs (particularly construction costs)
- the post construction review (PCR) stage, which is focused on assessing opex and finalising the capex allowances.

We provide provisional regulatory approval for projects at the IPA stage and then final approval at the FPA stage. Following construction, we then set the final cap and floor levels to apply to the project at the PCR. Further explanation of these stages is set out below, with a succinct overview set out in Table 4 on page 14 of this letter.

Initial project assessment (IPA)

Our November 2015 decision to open a second cap and floor application window provides guidance for developers and information on the IPA stage.[15] The IPA stage takes place during the development phase of projects.

The IPA is the stage at which the needs case for a project is determined, and at which a cap and floor regime in principle may be granted. To be granted a cap and floor regime 'in principle' means that the project has passed the IPA stage and must now meet a number of conditions attached to our IPA decision and successfully complete the final project assessment FPA stage.

We are keen to meet with developers prior to application in order to informally discuss the submission, where this is possible. Developers should get in touch with us in advance of giving notice of application and in advance of the expected submission date.

Final project assessment (FPA)

The FPA is the stage at which the grant of a cap and floor regime is confirmed. This stage takes place after the IPA stage and following further development work, including tendering for the construction of the link.

The timing and process for the FPA stage is an area where we can provide further clarity since our first cap and floor application window. Recent experience suggests that developers may choose to take the final investment decision (FID) and sign procurement contracts prior to the FPA. We can confirm that the FPA can take place either side of developers' investment decisions and the letting of major procurement and construction contracts. The decision on whether to take FID prior to the FPA stage sits with project developers. However, the following broad principles will apply:

- Developers' costs will be subject to the same scope and level of assessment regardless of when they take the decision to invest.

[15] Decision to open a second cap and floor application window for electricity interconnectors in 2016: https://www.ofgem.gov.uk/publications-and-updates/decision-open-second-cap-and-floor-application-window-electricity-interconnectors-2016

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- Where developers take a decision to invest prior to the FPA, and commit to certain contracts and levels of expenditure, there is no guarantee from Ofgem that this expenditure will be deemed efficient and will be reflected in the cap and floor levels.
- In order for Ofgem to undertake a FPA prior to the developer's investment decision, developers will need to provide reasonably certain tender returns (as a minimum), including proof of negotiations and preferred bidder selection (and criteria). We will aim to give as much clarity as possible to inform developers' investment decisions. However, we may then require a post-FID adjustment to the cap and floor levels to ensure that any efficiently-incurred variations to the contract prices following tender returns are captured in the cap and floor levels.

The order of the FPA process may slightly differ depending on whether the FPA takes place pre- or post-FID. However, the principles and the areas of assessment will remain the same. As part of the FPA we will agree the detailed regime parameters for the project, in a similar form to Annex 1 of this letter. We would also expect to agree bilateral commercial principles with developers where relevant, in particular where some information continues to remain commercially sensitive or confidential. Following our FPA, we would then implement the regime through proposed licence changes and issue these for consultation.

Post-construction review (PCR)

The PCR is the stage at which the final cap and floor levels for the project are set. This allows us to reflect any significant changes in the project and to undertake an assessment of the projected opex costs closer to operation, when we have better information.

The PCR is expected to take place shortly before operation, when construction is nearly complete. The PCR will be informed by the annual updates and cost submissions that developers provide during the construction phase, as well as a standalone PCR submission. At the PCR stage we will consider the risk conditions that were granted at FPA and specific variations in capex that have occurred during construction. The contingency for risk will be evaluated in respect of outturn events, and relevant capex variations will be considered only where these have been highlighted as an area to revisit at the FPA stage. The PCR is not intended to be a catch-all reassessment and so we expect a tight limit on the scope of the capex element of this stage.

The outcome of the PCR will be that the cap and floor levels are updated and set for the length of the regime (subject to specific re-openers set out in Annex 1).

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Table 4: Overview of cap and floor assessment process

	Aim of stage	Timing	Developers provide…	Ofgem provides…
IPA	• To assess a number of interconnector projects in tandem where possible. • To establish a clear needs case and evidence base for projects that will be in the interests of GB consumers.	• Following the receipt of applications for a cap and floor regime via our application windows. • During the development phase of projects.	• Proof that the project meets our minimum eligibility criteria. • A range of detailed project information, including a CBA and social welfare analysis.	• Provisional cap and floor regulatory approval (ie a cap and floor regime in principle), subject to a number of conditions. • Possibility to reflect project-specific circumstances.
FPA	• To review the procurement process to ensure it has been undertake efficiently. • To assess firm costs (capex, devex) and risk allowances. • To confirm our view on the technical design of the project. • To confirm the regime design parameters. • Developers may request opex assessment at FPA stage on a project-specific basis.	• FPA submission must be within two years of the relevant IPA decision. • Project-specific timing; can be pre- or post-final investment decision (FID).	• Detailed information on costs. • Detailed justification of the procurement process followed. • Justification of final technical design. • Detailed information on risk management strategies for the construction phase.	• Final cap and floor regulatory approval. • Provisional cap and floor levels.
PCR	• Undertake opex assessment. • Finalise capex assessment based on risk actions and mitigations (in line with limited scope set at FPA).	• Shortly before operation (when construction is near completion and most of related incurred expenditure is known).	• Annual cost and construction updates. • Detailed opex projections. • Justifications for any capex variations in line with agreed PCR scope set at the FPA.	• Final cap and floor levels, fixed for 25 years of operation (subject to specific reopeners).

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Annex 3: Additional resources

Interested parties may wish to refer to the following documents for additional background information:

- Our May 2014 proposal to roll-out the regime to near term projects which set out proposals for how the regime will operate.[16]
- Our subsequent decision in August 2014 to roll-out the regime to near term projects, which finalised a number of details of the regime and launched the first application window.[17]
- Our decision to continue with the cap and floor regime, as part of the Integrated Transmission Planning and Regulation (ITPR) project final conclusions. The ITPR project also set out our approach to transmission projects that serve multiple purposes – 'multiple purpose projects' (MPPs).[18]
- Our decision to launch the second application window which also included application submission guidance and standard conditions on IPA decisions.[19]
- Our guidance on enabling a range of financing solutions under the cap and floor regime and the associated letter of support from the European Investment Bank (EIB).[20,21]
- Our recent consultation on the licence changes to implement the cap and floor regime, which includes our proposed standard conditions that will apply to all interconnectors granted a cap and floor regime, and our proposed special conditions that will apply specifically to the interconnector Nemo Link.[22]
- Our decision on indexation of the cap and floor levels[23]
- Our updated guidance on hedging in the offshore transmission regime, expected to be published in late spring 2016.

[16] The regulation of future electricity interconnection: Proposal to roll out a cap and floor regime to near-term projects: https://www.ofgem.gov.uk/sites/default/files/docs/2014/05/regulation_future_interconnection_cap_and_floor_0.pdf

[17] Decision to roll out a cap and floor regime to near-term electricity interconnectors: https://www.ofgem.gov.uk/sites/default/files/docs/2014/08/decision_cap_and_floor_near_term_electricity_interconnectors.pdf

[18] Integrated Transmission Planning and Regulation (ITPR) project: final conclusions: https://www.ofgem.gov.uk/sites/default/files/docs/2015/03/itpr_final_conclusions_decision_statement_publication_final.pdf

[19] Decision to open a second cap and floor application window for electricity interconnectors in 2016: https://www.ofgem.gov.uk/publications-and-updates/decision-open-second-cap-and-floor-application-window-electricity-interconnectors-2016

[20] Enabling a range of 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

[21] EIB letter of support: https://www.ofgem.gov.uk/sites/default/files/docs/eib_los.pdf

[22] Consultation on proposed licence changes: https://www.ofgem.gov.uk/publications-and-updates/consultation-proposed-changes-standard-conditions-electricity-interconnector-licence-licences-held-nemo-link-and-ngil-and-ngets-electricity-transmission-licence-implement-cap-and-floor-regime-and-use-revenues-compliance

[23] Our decision on indexation: https://www.ofgem.gov.uk/system/files/docs/2016/03/decision_letter_ofgem_indexation_310316_final.pdf

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