



Making a positive difference
for energy consumers

Interconnector developers and
other interested parties

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Date: 27 November 2015

Dear stakeholders

Decision to open a second cap and floor application window for electricity interconnectors in 2016

This letter confirms that we will open a second application window for the cap and floor regime for electricity interconnectors ("the second window"). The second window will be open from 31 March 2016 to 31 October 2016. Projects will need to meet certain eligibility criteria to be considered, and give us at least three months notification in writing before submitting an application. We expect that projects that apply will receive Initial Project Assessment (IPA) decisions within six to nine months of the window closing. However, we may accelerate our analysis of projects that apply early within the window and appear more advanced which would mean our IPA decision for such a project may be published at an earlier date.

We set out the background to our decision below, and more detail on the timing, process, eligibility criteria and next steps for the second window.

Background

In August 2014, we published our decision to extend the cap and floor regime to near-term electricity interconnectors.¹ In March 2015, we published our decision as part of our final conclusions for the Integrated Transmission Planning and Regulation (ITPR) project to extend the cap and floor regime and open more windows in the future.²

The cap and floor regime is now the regulated route for interconnector investment in GB, which sits alongside the exemption route (whereby project developers apply for exemptions from aspects of European legislation).

The first application window closed in September 2014. Five projects applied for cap and floor regulation in that window. We consulted on our IPA of these projects and decided to grant each project a cap and floor regime in principle.

¹Read our August 2014 decision letter at:
https://www.ofgem.gov.uk/sites/default/files/docs/2014/08/decision_cap_and_floor_near_term_electricity_interconnectors.pdf

² Read our ITPR final conclusions, March 2015:
https://www.ofgem.gov.uk/sites/default/files/docs/2015/03/itpr_final_conclusions_decision_statement_publication_final.pdf

We initially indicated that we expected to open a second window in 2015. In March this year we invited stakeholders to confirm whether they intended to submit projects within the second window.³ In light of the feedback we received, in July this year we published our decision to postpone the second window.⁴ This reflected the status of projects that had indicated an interest. This letter now sets out our decision on the timing of and process for the second window.

Timing of and process for the second window

The second window will be open for IPA submissions from 31 March 2016 to 31 October 2016. Developers will decide at what point within the second window they wish to apply. Developers must give us at least three months' notice in writing before submitting an application.

After a project has submitted an application in the second window, we will undertake our eligibility check within one month. Our eligibility check will confirm whether the application meets the eligibility criteria as set out on page 3 of this letter. Each application must satisfy the eligibility criteria in order to proceed to the IPA stage.

At the IPA stage we will assess the project and its relative benefits including the value derived from the level of investment, and consider the impacts of the project under different scenarios of interconnection development. Further information on our assessment process is set out the appendix to this letter. We will consult on our IPA decisions.

Where the timings of applications allow, we will assess and consult on projects together. However, if there is significant variation in the timings of applications within the window, we may assess some projects individually or in a smaller group. We will make our decision on how to group our assessment based on:

- the timings of applications
- the likely interactions between the projects applying, and
- the maturity of a project and its immediate timescales.

If we assess projects in isolation or in smaller groups, we will ensure that they are assessed against a suitable set of assumptions for future interconnection development. The purpose of this would be to ensure that projects gain no advantage from applying earlier in the window.

We expect that projects that apply will receive IPA decisions within six to nine months of the window closing or earlier, subject to consultation on our IPA decisions.

The process for the second window IPA stage is illustrated in figure 1.

After IPA, the next stage will be the Final Project Assessment (FPA), where we will assess a project's costs in detail to provide a firm basis for making our final decision on providing a cap and floor and to inform the cap and floor levels.

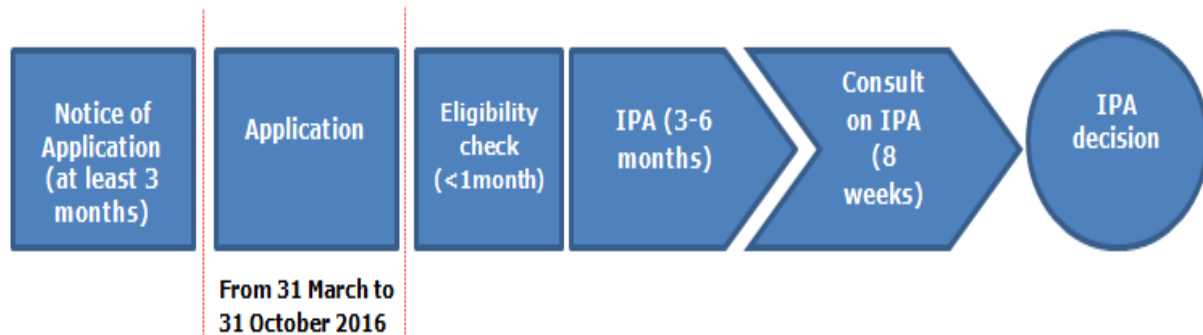
³ Read our March 2015 letter here:

https://www.ofgem.gov.uk/sites/default/files/docs/2015/03/second_window_for_near-term_electricity_interconnectors.pdf

⁴ Read our July 2015 letter here:

https://www.ofgem.gov.uk/sites/default/files/docs/2015/07/second_cap_and_floor_application_window.pdf

Figure 1: The process for the IPA stage of the second window



Eligibility criteria

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

- a GB connection agreement for connection prior to the end of 2022
- an interconnector licence (either granted or application made), and
- all submission information for IPA stage complete.

We have provided further guidance on these criteria and the information we need in the appendix to this letter.

We also note that we do not think it is appropriate for developers to apply for a cap and floor and an exemption in tandem. We expect developers to choose whether the cap and floor regime or the exemption route better suits the needs of their projects.

Other provisions

For projects applying in the second window, the following provisions apply. We may decide to attach further provisions to projects where we consider these to be appropriate in light of our analysis of each project.

Time limits

We think it's important to balance the need to prevent our decisions from being open-ended and to protect developers against events outside of their control.

For projects applying in the second window we may choose to require a new IPA stage if the project does not provide a complete submission for FPA within two years of our IPA decision. In this case, we may re-run our analysis to confirm whether or not the project continues to be in consumers' interests and should continue to be granted a cap and floor arrangement.

Additionally, the FPA decision will be conditional on the start of construction not being materially delayed. If our IPA demonstrates that the project value to consumers strongly depends on a particular connection date being met, we may consider attaching other conditions to our IPA decision.

Where a project is delayed beyond its expected completion date, we will start the 25-year regime period from the earlier of the actual commissioning date or 12 months after the expected completion date. The cap and floor period would therefore reduce accordingly.

Change in project scope

Where a positive IPA decision is made, developers will be required to give formal written notice of any subsequent material changes to the project's design, such as changes in capacity, connection location or connection date. Following any such change, developers will be required to explain the rationale for the change and the implications for project costs and delivery timescales.

If any information given to us before making our FPA decision leads us to consider that the basis of our IPA decision has materially changed, then we may choose to require a new IPA stage. In this case, we may re-run our analysis to confirm whether or not the project continues to be in consumers' interests and should continue to be granted a cap and floor arrangement.

No material escalation in costs

Costs submitted by developers at IPA must not materially rise. This is because the costs have an impact on our welfare assessment at IPA. We will consider the threshold of materiality of any cost escalation against the potential impact on the needs case and consumer benefits, the original estimates provided, and comparable costs for similar projects.

Requirement to have a Connections Infrastructure Options Note (CION) in place

We will require projects to have a CION in place with National Grid Electricity Transmission (NGET) and provide this to us in order to apply for a FPA. The CION will give us the necessary information to understand the impact of the project on the GB transmission system. If the CION provides information that materially affects our IPA decision, we reserve the right to revisit that decision and could potentially require a new IPA stage. Developers that have a CION in place at the IPA stage should include it in their IPA submissions. Developers that apply for an IPA without a CION in place do so at their own risk.

Where developers do not include a CION in their IPA submission, they must provide this to us as soon as possible thereafter (ie, developers must provide us their CION as soon as it is agreed with NGET, as opposed to waiting until their FPA submission).

Reporting requirements following our IPA decision

Following a positive IPA decision, projects will be required to provide us with quarterly written reports on progress against a number of key development milestones, including (but not limited to) development work, consenting and permitting, procurement, financing, operational management plans and costs, project management and other factors that have an impact on our IPA welfare assessment.

Supply chain plans

We will require developers to provide a public-form supply chain plan for each project that can be published on our website.

Non-firm connection agreements

We recognise that some projects may have non-firm access to the transmission system in their connection agreement.

Developers should be aware that non-firm connection agreements can lead to outages. This would affect the projects' performance against the availability incentive in the cap and floor

regime. Additionally, outages may lead to the developer incurring additional market-related costs⁵ and we would consider carefully whether the developer should be able to receive top up payments to the floor as a consequence of these costs, or whether the developer should take the risk.

Anticipatory investment

We will consider proposals to include anticipatory investment in the scope of a project. Developers must demonstrate why any anticipatory investment is in consumers' interest. If we do not agree, we will exclude the relevant costs from the calculation of the cap and floor.

If we agree with the rationale for anticipatory investment at the IPA stage we would normally not revisit this at the FPA stage, unless the proposed level of anticipatory investment has changed significantly or if a long time has elapsed between the IPA decision and FPA submission (as set out above). We will consider the efficiency of all costs (including anticipatory investment) at the FPA stage.

Requirements to comply with EU law

Projects applying for cap and floor must comply with all the relevant European law requirements, including existing and future European network codes. Developers also need to comply with all other relevant legal and licence obligations.

We will not specifically assess projects' ability to comply with other requirements (eg ownership unbundling obligations, licence conditions and related industry codes) as part of this process. It is for each project to ensure compliance with all relevant legal obligations and our decision to award a cap and floor is subject to these obligations being met.

Indexation of the cap and floor levels

We are currently inviting views from stakeholders on a move to the Consumer Prices Index (CPI) as an inflation index.⁶ Developers applying in the second window will have their cap and floor levels indexed according to the conclusions of that process.

Regime variations

Developers may request changes to the default regime. If a developer wishes to do so they must:

- explain in full what they are proposing and the reasons why
- include financial modelling of the regime design with and without the change to show impacts of any change on consumers, and
- justify why the change is in consumers' interests.

Developers may request variations at the IPA stage or later. If developers request variations at the IPA stage, they must clearly state whether their submission is conditional on any proposed variation. If this is the case then the project will not be assessed for IPA if the variation is not shown to be in consumers' interests.

⁵ Eg, firmness costs under Capacity Allocation and Congestion Management (CACM)

⁶ Read 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

Regardless of the timings of requests for variations, developers should note that the timelines of our current processes (eg timing and duration of FPA) will have to be respected.

In May of this year, we published an open letter inviting interested parties to engage with us on the financing of electricity interconnectors under the cap and floor regime.⁷ Developers should note that, following on from this process, we expect to issue additional guidance for developers considering requesting regime variations related to financing.

Next steps

Developers must provide their full application after **31 March 2016** and by our deadline of **31 October 2016**. Developers must give us at least three months' written notice before submitting an application.

The submission guidance for the second window is published in the appendix to this letter. Where developers have additional questions they should contact Laura Edwards on 0207 901 7249 or at the email address below.

Please send project submissions and any questions to: cap.floor@ofgem.gov.uk.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'S3 Beel'.

Stephen Beel
Associate Partner, Electricity Transmission

⁷ Read our open letter at:
https://www.ofgem.gov.uk/sites/default/files/docs/2015/05/open_letter_-_electricity_interconnector_financing_under_the_cap_and_floor_regime_2.pdf

Appendix: Guidance for developers on project submissions and assessment

This appendix sets out guidance for developers applying in the second window.

Our assessment process

IPA

At the IPA stage we will assess projects on the basis of developers' submissions, our own modelling of the impacts and the information provided by NGET as system operator. Our assessment will include the elements discussed below.

- Quantified Cost-Benefit Analysis (CBA) against a plausible range of scenarios, including detailed cost estimate data where possible – this should include consideration of significant uncertainties and risks relating to the project.
- Based on this, overall likely social welfare benefit and disaggregated consumer, interconnector developer and generator impacts for GB and other relevant countries (with particular explanation of impacts on GB consumers' interests).
- Qualitative evaluation of any additional hard-to-monetise benefits, costs and risks that aren't reflected in the CBA. This will feed into our strategic and sustainability assessment.
- Justification of the chosen connection location, interconnector capacity and technical design (eg converter technology and cable type), including by reference to comparison against other reasonable options.
- Input from NGET as system operator on the efficiency of the timing and location of connection point, and also the value of interconnector projects for system operation (ie impact on constraint costs and value of ancillary services).
- Project feasibility including key milestones and progress with other national regulatory authorities and governments, financing plans and supply chain plans.
- Whether there are any particular aspects of the project needs case that are likely to merit further consideration or revisiting as part of the final assessment stage.

In making our assessment, we will want to be satisfied that:

- The proposed project provides a clear benefit case for GB consumers and justifies the regulatory support requested.
- By comparison with relevant alternatives, the proposed project is an appropriate option for delivering such benefit to consumers.
- The overall proposed project is realistic, has been planned robustly and there is a clear expectation of it being able to deliver in line with the parameters set out in the IPA submission.

We may commission consultants to undertake quantitative modelling to support our assessment.

FPA

At the FPA stage we will set provisional cap and floor levels, review the technical design of the project and evaluate procurement strategies. At this point we will assess the efficiency of the detailed project costs. We will need to undertake our own assessment of all costs that may fall to GB consumers.

We will issue guidance to developers for FPA submissions closer to the time.

We will consult on the conclusion of our FPA. This consultation will also include an updated assessment of the IPA if appropriate.

Submission guidance for the eligibility and IPA stages

At the eligibility and IPA stages, developers will need to provide the information summarised in table 1. Where appropriate, further detail on some items is set out below.

Modelling study

We require developers to provide a cost benefit analysis (CBA) and social welfare study. This should be a quantified modelling study that disaggregates benefits for different groups, supported by qualitative evidence where appropriate. This study should be undertaken against a plausible and justified range of scenarios for generation mix, demand and other key drivers of trading between interconnected countries. This should include with other interconnectors going ahead; developers should use the publicly available information in NGET's interconnector register to inform estimates of future interconnector capacity.⁸ Developers should also particularly consider the latest national scenarios in relevant countries. The four scenarios set out in ENTSO-E's CBA guidance could also be reflected, particularly to provide a wider European background for countries not subject to more detailed modelling.

Relevant sensitivities, such as potential cost over-runs or dependencies on particular policies, should be considered on a project-by-project basis. As part of these sensitivities, it would be useful for developers to consider the benefit of their project if the GB carbon price (including the Carbon Price Floor) is the same as the EU carbon price to demonstrate the benefits provided by interconnection that aren't driven by carbon price differentials.

We expect developers to provide analysis supporting the social welfare benefit of their project, and disaggregation of benefits, costs and risks between consumers, interconnectors and generators in GB and other key countries. This should also seek to distinguish between key types of costs and benefits, as a minimum separately showing impacts as a result of changes in wholesale energy prices and any cap or floor payments.

The modelling should cover a number of spot years as a minimum, covering the expected duration of the regime – such as 2022, 2027, 2032 and 2037. Developers can provide a full annual breakdown of benefits where this supports the case for the project. We also require overall figures of the net present value of projects, based on interpolation between spot years where necessary, displaying headline benefits of the interconnector for GB as a minimum and for Europe as a whole where possible.

When discounting project benefits, developers should use the Treasury Green Book discount rate of 3.5% or provide a strong justification for using a different rate.⁹

Developers should provide reasonable assumptions relating to demand, weather pattern variability, generation mix (including load factors) and capacity and location of further interconnection in interconnected countries. We expect developers to justify these where necessary. These should align where possible with the assumptions in national scenarios and ENTSO-E's CBA guidance and any deviations will need to be fully justified. Modelling should be undertaken against high and low sensitivities/scenarios for future interconnection to GB (ie presenting benefits of their project if it is one of a few further interconnectors,

⁸ National Grid Electricity Transmission's interconnector register is available at:

<http://www2.nationalgrid.com/UK/Services/Electricity-connections/Industry-products/TEC-Register/>

⁹ The Treasury Green Book is available at:

[HTTPS://WWW.GOV.UK/GOVERNMENT/UPLOADS/SYSTEM/UPLOADS/ATTACHMENT_DATA/FILE/220541/GREEN_B
OOK_COMPLETE.PDF](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf)

and similarly when there is a significant increase in cumulative GB electricity interconnection).

Developers may submit a competition assessment where they expect that their project will bring significant competition benefits to the wholesale market in either GB or the connecting market and where this supports the needs case for their project. However, given the likely capacity of any interconnector relative to the GB wholesale market, we do not view this as a necessary part of the CBA/social welfare modelling submitted.

The CBA needs to consider the social welfare benefits against the projected costs of the interconnector. This includes development, capital and operating costs. Developers' CBA studies will also need to incorporate the costs of any necessary onshore reinforcement required in the two connecting markets, and any projected increase in constraint costs as a result of their connection to national transmission systems.

Qualitative assessment of risks and dependencies

We expect developers to reflect project uncertainties and risks in their quantitative CBA. However, where this is not possible, developers may submit a qualitative description of what they consider to be the most relevant risks and uncertainties for their project. This should support the social welfare analysis and CBA.

We expect this will also highlight any uncertainties on which project progress would likely be conditional – for example, if the investment is reliant on a particular minimum level of remuneration beyond that provided by the market, if it is dependent on certain technology being sufficiently proven, or if the procurement is tied to other transmission projects between non-GB markets. Developers may also wish to highlight potential planning risks where this is not sufficiently covered in their project plans.

Justification of the chosen connection location, capacity and design

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

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

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

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

Project plans, supply chain plans and financing plans

We require developers to submit detailed project plans including key milestones from early-stage development through to operation.

This should be supported by detail on the discussions had to date with the relevant national regulatory authorities and governments in the connecting market, and a description of how developers expect our cap and floor regime to interact with the regulatory approach at the other end of the interconnector (if these differ). It should also include, where applicable, engagement with European processes such as the Ten Year Network Development Plan (TYNDP) or Projects of Common Interest (PCI) processes.

The necessary steps in planning and consenting should be supported with detail on any engagement undertaken to date. It should also set out when projects envisage making their Final Investment Decision.

We also expect submissions to include an overview of developers' procurement plans (including an assessment of supply chain availability and engagement undertaken to date) and financing plans, together with supporting evidence.

Indication of FPA submission

As part of their IPA submission developers should give an indication, where possible, of the planned timing of their FPA submission. This should also indicate whether any part of their initial submission is likely to need revisiting at the FPA stage.

Guidance on input from NGET as system operator

For the second window, NGET as system operator will provide information that will be used to help inform our IPA stage.¹⁰ This will include:

- information relating to the efficiency of connection choices made by projects, and
- a submission on the general system operation impact of interconnectors, supported by quantified and project-specific analysis where this is available.

We will require a narrative from developers justifying the chosen connection location, interconnector capacity and technical design. This should be part of the IPA submission and should contain comparison with other reasonable options. Developers don't need to engage with the system operator to inform these submissions (beyond the connections process undertaken).

Where a developer feels that a given project provides significant system operation benefits, we would welcome this analysis (either as part of interconnector modelling or separately) in its submission.

Table 1: Summary of submission requirements

Stage and deadline	Requirement	Submission material
Eligibility stage	Interconnector licence (granted or application made).	Proof of licence or current status of application.
	A GB connection agreement for connection prior to the end of 2022.	Proof of final connection agreement with NGET.
	Submission information for IPA stage complete.	All information listed for IPA stage below is submitted and complete. We will perform a high level check to ensure that

¹⁰ NGET provided similar input for the first window in its report on quantified interconnector impacts, December 2014: https://www.ofgem.gov.uk/sites/default/files/docs/2015/03/nget_report_to_ofgem_-_quantified_interconnector_impacts.pdf

		all information for the IPA stage has been provided.
IPA stage	Project overview.	General overview of the project, including ownership structure and confirmation of licence and connection agreement.
	Modelling study.	<p>Cost-benefit analysis and social welfare modelling undertaken against a plausible range of scenarios. This should cover a number of spot years and connecting markets as a minimum. It should include interactions with other interconnector projects. This should also include modelling of projected revenues and estimated impacts of a cap and floor on revenues and on consumers.</p> <p>All assumptions, scenarios and sensitivities should be well justified.</p>
	Hard-to-monetise benefits	Qualitative evaluation of any additional hard-to-monetise benefits, costs and risks that aren't reflected in the modelling study.
	Qualitative assessment of risk and dependencies.	Description of relevant risks, uncertainties and dependencies.
	Indicative costs.	A completed version of the high-level template (published alongside this decision letter) with a supporting explanation of how the costs have been estimated.
	Justification of connection location, cable route, capacity and technical design.	<p>Justification for the overall design of the project, including justification and reference to other options. This should include SO discussions to date and associated onshore impacts.</p> <p>If developers have a Connection and Infrastructure Options Note (CION) in place they must include this in their IPA submission.</p>
	Project plans.	Detailed project plans including milestones from early-stage development to operation (and ability to meet connection date). Project plans should include milestones for consenting, procurement, financing and investment

		decisions and construction. It should also include, where applicable, engagement with European processes such as the TYNDP or PCI processes.
	Plans for grid connection in the connecting country.	Description of how the developer expects to be granted access to the grid in the connecting country.
	Financing plans.	Description of plans for financing the project with robust supporting evidence.
	Supply chain plans.	Description of supply chain plans for the project with robust supporting evidence.
	Indication of FPA submission.	Indication of planned timing of FPA submission, including confirming whether any aspects of the IPA are likely to change by the point of FPA submission.