Public

October 2024

Early Competition – implementation

A review of customer dialogue and how this has informed the development of the early competition framework.

NESO
National Energy System Operator

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Introduction

Our customers are at the heart of everything we do. Through the early competition implementation phase, we have proactively engaged to share information, listened to feedback, and used this to ensure that our actions and decisions are informed, considered, and balanced. This process is central to the development of the early competition model.

We have built on previous engagement undertaken during the evolution of the Early Competition Plan (ECP),[1] we have maintained our commitment to engaging in an open and transparent manner. We have proactively sought feedback on key topics and listened to stakeholders who have shared their views on the areas that matter to them.

This report provides a summary of the key stakeholder feedback received, explaining how this has informed the ESO position which we have confirmed again as the NESO.

Introducing competition to onshore transmission

In recent years, Ofgem has considered how new infrastructure can be delivered efficiently on time and ensuring value to the consumer. In 2019, Ofgem asked the Electricity System Operator (ESO), to develop a new model to deliver early competition for the delivery of onshore electricity transmission. This will apply to transmission projects that have onshore connection points, this can include projects that may be referred to as 'bootstrap' or 'wet onshore' (Figure 1).

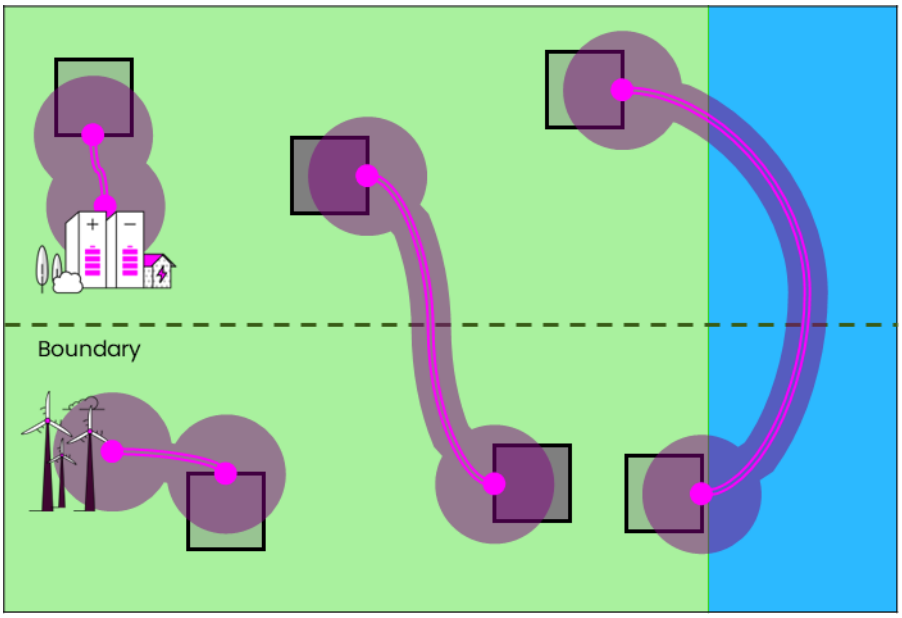

Figure 1. Different types of onshore transmission projects.

The term 'early' refers to the point at which it is tendered. In the case of early competition, this means that a project is relatively early in the development process; the start and end locations are known and the network need (e.g. size of boundary uplift is known). How this compares with other models of competition is shown in Figure 2. An early model of competition provides an

[1] ESO, Early Competition Plan, April 2021.

opportunity for innovation in the design, choice of technology, construction methods and financing of a project.

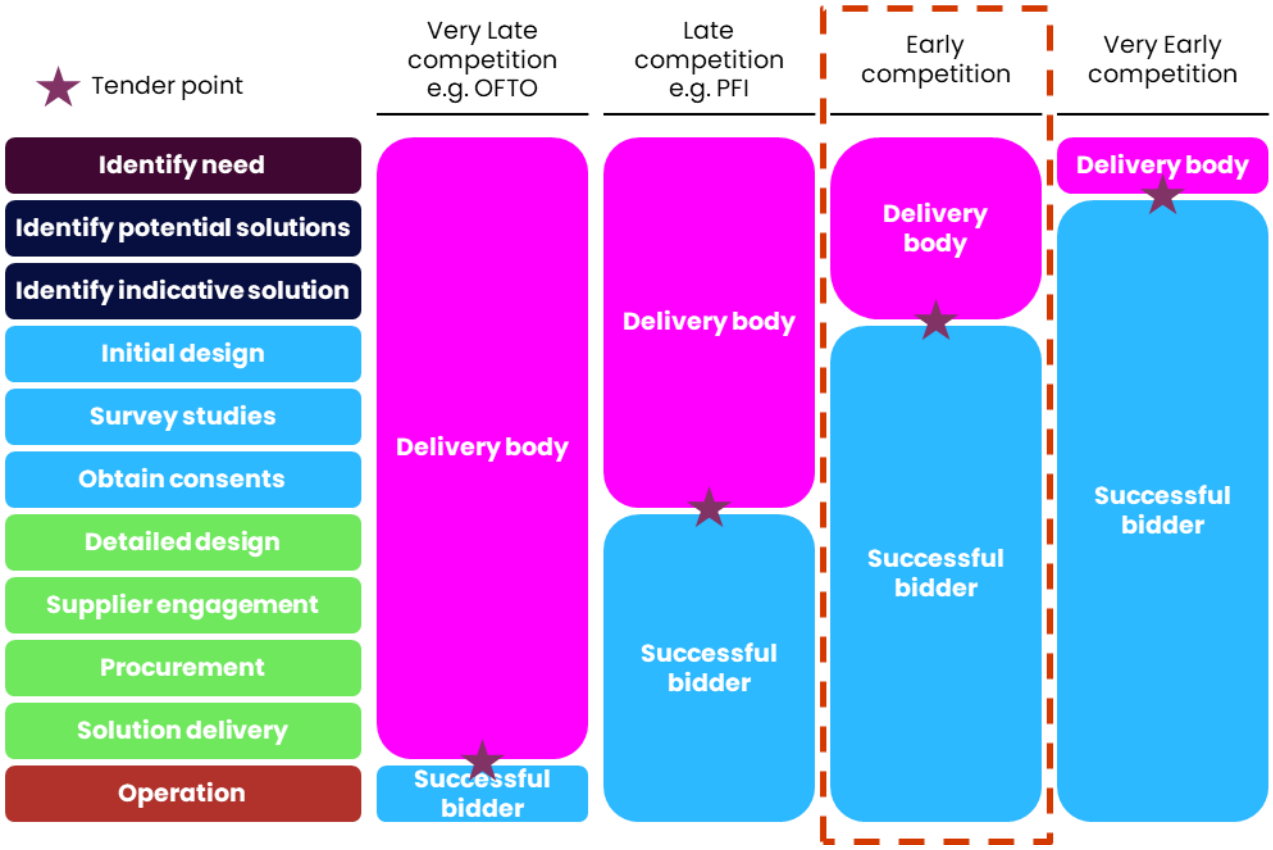

Figure 2. Comparison of different models of competition.

Bidders can submit their own solutions and designs but must demonstrate they meet the parameters in the project specification. The competition winner (successful bidder) will be a competitively appointed transmission owner (CATO) and will be awarded a CATO licence by Ofgem. The CATO will be responsible for the design, planning, consenting, construction, operation, and maintenance of the asset.

The early competition model

The ESO developed a model for early competition and this was published in the Early Competition Plan (April 2021). In March 2022, Ofgem asked the then ESO to work on the implementation of early competition. Since the publication of the Early Competition Plan, there have been developments in the electricity system, this includes the Centralised Strategic Network Plan (CSNP) and Connections Reform. Similarly, new legislation has come into play, namely the Energy Act 2023 and the Procurement Act 2023. These developments led to further development of the early competition model and a revised model was published in February 2024.[2] Ofgem then consulted on policy elements of this and their decision was published in July 2024.

[2] ESO, Early Competition Implementation – Update, February 2024.

Throughout the more detailed development, we have worked with stakeholders to explain our thinking, listen to feedback, and consider this as we finalise the early competition process and our considerations for identification of the first project. The different areas we have worked with stakeholders can be seen in the early competition overall process (Figure 3).

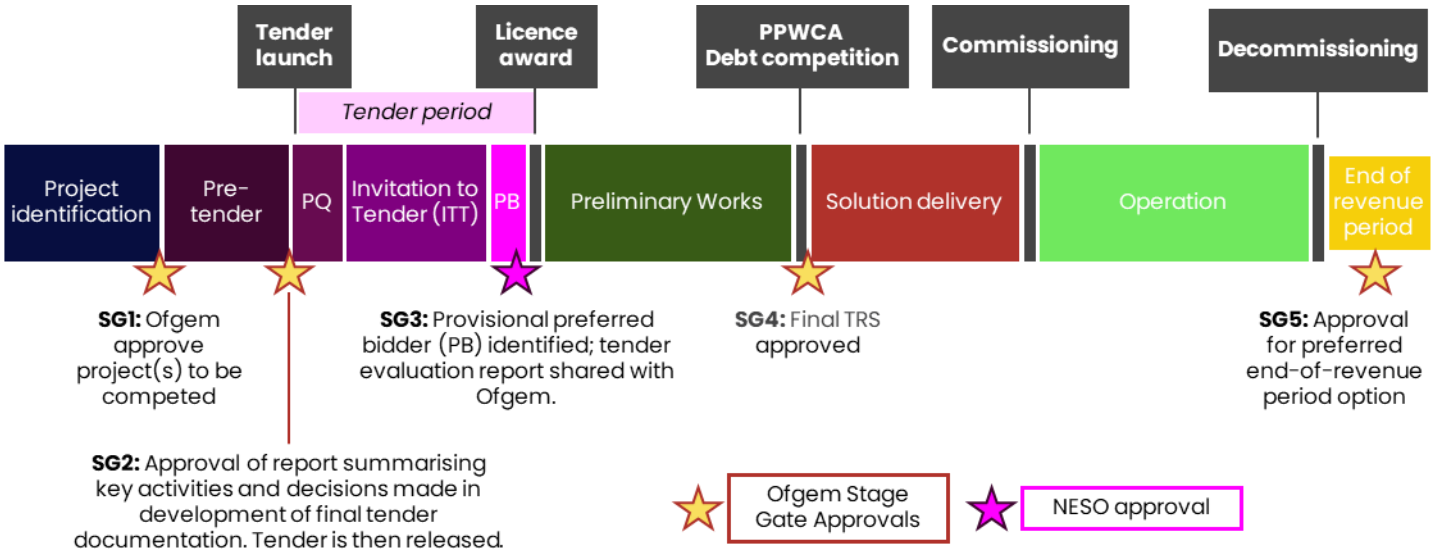

Figure 3. The end-to-end process and stage gates (SG) for early competition. PQ: Pre-qualification, PB: Preferred Bidder, PPWCA: Post-preliminary works cost assessment, TRS: Tender Revenue Stream.

Early competition implementation

In February 2024, we published a report on the summary of the stakeholder engagement carried out up to September 2023.[3] This feedback was used to inform the updates and amended early competition model as published in the early competition implementation (EC-I) update,[4] supported.

This revised edition, provides an update, and summarises all the engagement in 2022, 2023 and up until the end of September 2024. During 2024, some of our proposals have been confirmed through the process of an Ofgem consultation and decision on policy positions.

During the early competition implementation phase (between September 2022 and September 2023), we held six webinars providing both general updates on our progress, as well as providing the opportunity to ask questions or give feedback. We have spoken to 38 organisations across different sectors who have provided insight and robust challenge on our proposals across 54 in depth discussions.

Continued development and engagement

Since the publication of the early competition implementation update, we have continued to engage with our stakeholders to further develop early competition.

[3] Early competition | National Energy System Operator (neso.energy)

[4] ESO, Early Competition Implementation – Update, February 2024.

We held three webinars to help our stakeholders to better understand the early competition model, and to explain how this will fit in with wider changes to network planning processes.

We also held a further 16 bilateral discussions with a range of stakeholders to help us understand present issues in the supply chain and to help finalise details of the commercial model.

The following sections set out the feedback received from stakeholders throughout our programme engagement (the "you said"). It then sets out our position in respect of the comments made and commentary explaining any actions taken as a result (the "we did").

Figure 4 illustrates the various bilateral, webinar, consultation and other engagement exercises that have been undertaken throughout the implementation of early competition.

Much of the feedback received relates to similar issues, and so has been combined in the following sections. Feedback from engagement after the publication of the early competition implementation update is highlighted in pink to illustrate the differences between the two phases.

This document should be reviewed alongside the Early Competition Implementation document but can also be considered alongside recent Ofgem consultations relevant to early competition.[5]

[5] Ofgem, Early Competition in onshore electricity transmission networks policy update consultation (February 2024) and decision (July 2024).

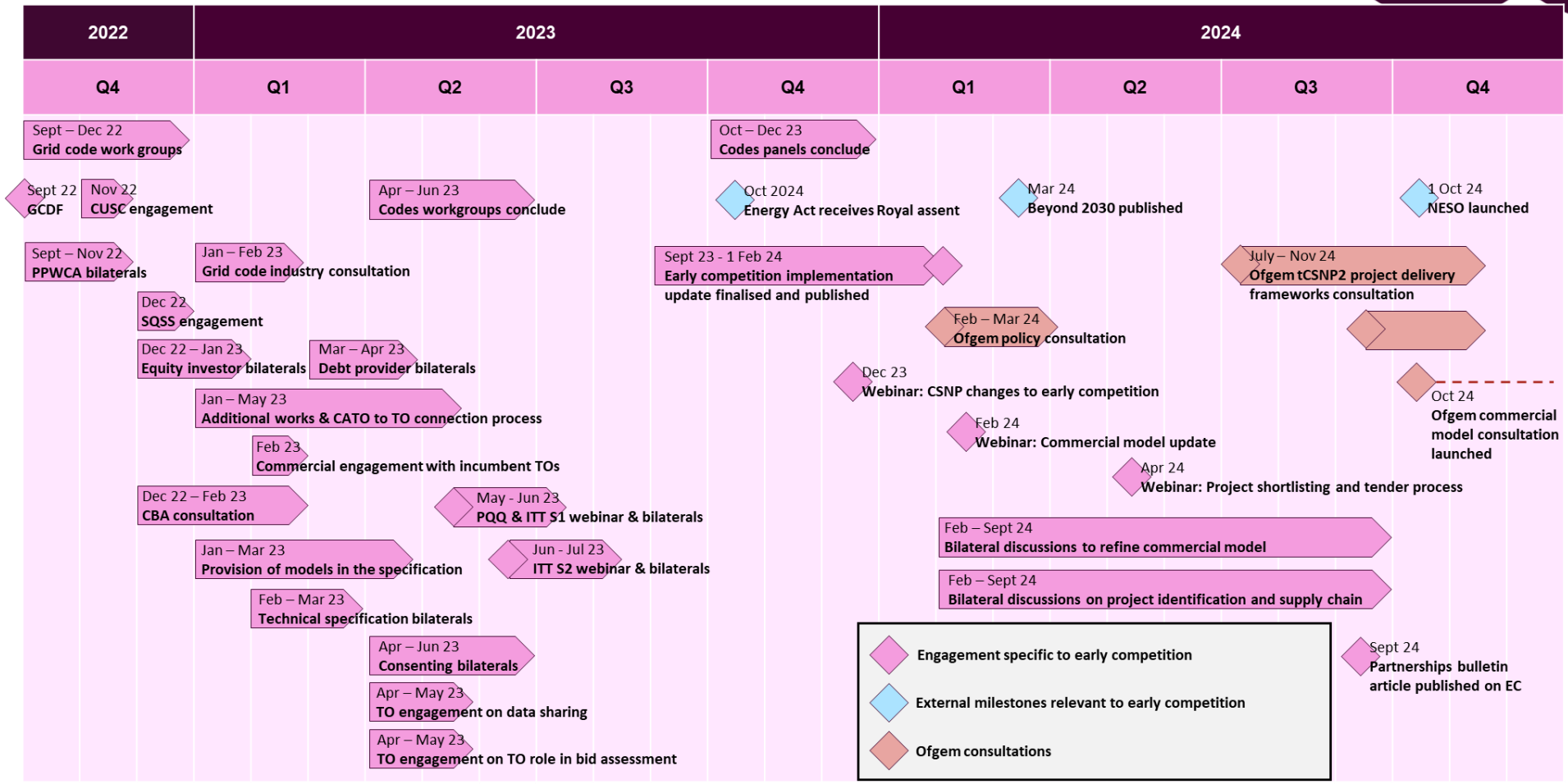

Figure 4. Early competition engagement timeline.

Background, legislation, and policy

Introduction of competition in electricity networks

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
The introduction of competition may increase complexity and risk to system planning and operations, and/or result in a loss of synergy.	• Workshop	• ENTSO-E • European TSOs	Disagree	We do not feel that the introduction of competition will increase system complexity. Wider holistic and strategic considerations will form part of the proposed CSNP regime and would consider these elements when determining what investments are required to meet needs. The output of that would then feed into the early competition process where criteria is met. Further detail on the CSNP process will become available as this process is developed.
The early competition model is needed. There is a lot of traditional thinking in current processes, which can be a barrier to progress.	• Bilateral sessions	• Technology suppliers	Agree	We consider that the introduction of the early competition model into the delivery of new network infrastructure will bring benefits to consumers and to the sector.
Sustainability and good environmental practices are linked to RIIO targets and penalties. Will NESO have something similar as an obligation for early competition, to drive the right outcomes, and level playing field?	• Bilateral sessions	• TOs	Agree	We agree that it is important to ensure a level playing field and drive the right outcomes. We intend to include contractual incentives like those set out in the RIIO framework. This will be subject to Ofgem's licence obligations.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Cooperation between CATOs and TOs could become a hurdle for competition if one party does not allow equipment to be put on their existing assets.	• Bilateral sessions	• Energy and Utility Investment company	Agree	We agree that cooperation between CATOs and TOs will be essential. We have engaged with Ofgem on early competition and have raised modifications to the System Operator Transmission Code (STC) changes to ensure that the appropriate amendments are made to facilitate the effective working of the model.
Will early competition also be applied to offshore infrastructure?	• Workshop	• ENTSO-E • European TSOs	N/A	The early competition model developed here applies to onshore infrastructure only. However, this could include solutions which involve two onshore connection points but an offshore component (e.g. cable, see Figure 1).
The process for early competition should not introduce a delay to the overall delivery timeframe when compared against a late competition model.	• Bilateral sessions	• Equity investors	Agree	We agree that wherever possible the introduction of competition into the process should not delay the delivery of critical infrastructure. Under early competition, a procurement process run at an earlier development stage (than the late model, for example) may allow competition to be introduced with less time impact than a late model, which can sometimes add in time for procurement between the preliminary works and construction phases.

Market and supply chain trends

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Some European TSOs have moved toward framework type agreements on a 10- or 15-year basis for the delivery of transmission infrastructure. This model reduces the resources and cost incurred in competition for projects.	• Bilateral sessions	• Equity investors	N/A	We recognise that different countries and transmission operators are taking different approaches for the delivery of new transmission infrastructure. Whilst long-term framework agreements can reduce the resources and cost of bidding, we consider that competitive procurement can drive down the overall cost of delivering infrastructure, and therein deliver value for customers overall.
Longer-term framework contracts will occupy industry capacity for the next 5-10 years. These processes are totally the opposite to the early competition approach.	• Bilateral sessions	• Equity investors		
The UK market has a real shortage of technical engineers, particularly Design Engineers. Whilst early competition is good, it 'sucks up' a lot of technical skills, without certainty that the project will go ahead/ they will win.	• Bilateral sessions	• Technology contractors	Agree	We recognise the need for certainty in the pipeline of future projects and have outlined the process by which projects will be identified in the early competition Implementation documentation. By the time an early competition procurement process is launched (and technical input is required) a project will have been assessed as new, separable, and certain. This should give bidders the certainty that it will proceed. Further, we consider that by providing a clear pipeline of opportunities, bidders will be able to
Early competition projects will be competing for the same resources globally. Salary costs for lead engineers are increasing due to demand.	• Bilateral sessions	• Construction contractors		

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
				plan ahead and ensure bid teams are sufficiently resourced.
Looking wider than the UK, all organisations have been caught out and the appetite for risk is not what it used to be. Risk appetite is less healthy now.	• Bilateral sessions	• Technology contractors	See commentary	Our position is that risks should generally be held by the parties best able to manage them, and our engagement has identified that parties are usually willing to take risk in the delivery of projects where this principle is followed. Nonetheless, through further analysis and engagement we have identified areas where additional provision is required to address key risks and have updated our proposals to reflect. Specific changes made to address risks are reflected throughout the rest of this document.
There may not be sufficient supply chain capacity in the current market to deliver on current network (onshore and offshore) network investment plans.	• Bilateral sessions	• Construction contractors	Agree	We have recognised stakeholder feedback that supply chains are constrained, both within the UK and internationally. We note that this is broader than just early competition but consider that outlining a clear pipeline of opportunities is the best mitigant to future uncertainty, as this allows potential bidders to plan and resource appropriately. Network planning documentation (NOA / tCSNP2) will provide a long-term view of upcoming transmission infrastructure needs, including an assessment of which projects are
How will you manage to bring projects to market given supply chain constraints?	• Bilateral sessions	• Equity investors		

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
				suitable for early competition, giving a clear horizon of future works.
Price changes are the biggest issue in the supply chain, particularly since UK / EU inflation can be significantly different from inflation at manufacturing locations.	• Bilateral sessions	• Original Equipment Manufacturers	Agree	We recognise that price changes over time can be a challenge for projects. Bidders will have a range of indices to choose at the tender stage. These will be used to adjust prices to reflect changes after the tender stage.
Manufacturers can work with prospective CATO bidders provided they can engage with a clear client (against whom they can undertake due diligence) and certainty of need.	• Bilateral sessions	• Original Equipment Manufacturers	Agree	Under the early competition model there will be a clear client from the tender stage once the successful bidder has been identified. This will enable early engagement with the supply chain to facilitate planning around a known need (the project).
For early competition, although the tender is early in the process, there is concern that a bidders will not be able to confirm their needs/orders and finance – this needs to be nailed down.	• Bilateral sessions	• Original Equipment Manufacturers	Agree	
High demand for HVDC cables is impacting HVAC supply chain capacity, as supply chain which supports both products is not mutually exclusive. From post-2030 to mid-2030, there is likely to be capacity given current demand projections.	• Bilateral sessions	• Original Equipment Manufacturers	N/A	We recognise the importance of early engagement to increase certainty and enable the development of the supply chain. Early confirmation of the Successful Bidder several years ahead of construction start should enable orders to be placed early in the process, and give clear signals to the market that the project is certain to go ahead.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
There is limited visibility on the need for AC infrastructure with the industry's focus on HVDC.	• Bilateral sessions	• Original Equipment Manufacturers	N/A	Market signals through the CSNP will provide certainty of the asset mix. Market engagement during pre-tender stages would allow for the assessment of capacity at that time.
Companies are trying to invest to increase capacity by 2030 but see a 25-30% shortage in the market despite this investment. For HVDC, supply chain constraints are expected to continue into the mid-2030s.	• Bilateral sessions	• Original Equipment Manufacturers	N/A	
Current supply chain has a large offshore component due to cost consideration takes 3-5 years to ramp up production. Investment decisions may hinge on firm orders.	• Bilateral sessions	• Original Equipment Manufacturers	N/A	
Different bid status levels could help with investment decisions to reinforce the certainty of a project.	• Bilateral sessions	• Original Equipment Manufacturers	Agree	
Strain on the supply chain in current projects, particularly for HVDC cables, has meant that suppliers are looking for (potentially significant) advance payments to secure an order. Therefore, bidders could expect to see considerable capex payments in the preliminary works	• Bilateral sessions	• Equity investors	N/A	

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
phase. It may be useful to see some scheduling of payments in the TRS.				
Clear policy signals from Government and policymakers will help to alleviate supply chain concerns.	• Bilateral sessions	• Original Equipment Manufacturers	Agree	We agree and consider that once a pipeline of projects has been identified for delivery through early competition this will help the supply chain to respond to a clear view of future demand.
Always insisting on competition adds complexity in the supply chain. Early competition is an enormous amount of early-stage prep works for several years during which time the market is already constrained. Early competition adds management resource.	• Bilateral sessions	• Original Equipment Manufacturers	Disagree	We acknowledge current market constraints and that the costs to transact with individual projects may be greater than to enter into a large framework. However, we consider that with sufficient warning of the project pipeline the market will be able to resource effectively to meet upcoming opportunities.
Locking in commitment from the supply chain may be supported by long-term agreements and engagement, possibly spanning multiple projects.	• Bilateral session	• Original Equipment Manufacturers	Agree	Consideration of bundling projects is allowed for in the project identification process.
Standardisation will help the industry to deliver more, faster.	• Bilateral session	• Original Equipment Manufacturers	Agree	We agree that the standardisation may help to increase the pace of delivery and reduce costs. Bidders will be able to exploit the benefits of standardisation through their tender submissions and design development.

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Project identification

The approach to project identification for early competition has been developed further during the implementation phase, including:

- Development of a Cost Benefit Analysis (CBA) model which assess the cost to customers of delivering a project through early competition versus a regulatory building block approach.
- Recognition of and support for the optioneering carried out in the CSNP in the identification of projects. This includes acknowledgement that non-network solutions should be procured through alternate routes such as Network Services Procurement (NSP) rather than Early Competition.
- Development of an approach to the technical specification of projects, including consideration of the provision of network models as part of the specification process.

To obtain feedback on these areas, we have:

- Engaged in a series of bilateral discussions with experienced stakeholders, including construction companies, investors, and transmission operators.
- Consulted on the methodology for CBA used to determine which projects should be progressed under early competition. The consultation opened in November 2022 and closed in February 2023.[6]

[6] During 2023, we reviewed the early competition model based on the development of the CSNP methodology. We reviewed the CBA methodology to consider whether it would require amendment based on the proposed change in approach. Analysis showed no further amendments were required to the methodology. The final methodology and outcome of the CBA consultation were published (February 2024) once it had been reviewed against our proposal for an amended model.

General feedback on project identification

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
The earlier investors get involved in a project, the greater the chance of fall out if network requirements change.	• Bilateral sessions	• Construction companies	Agree	We recognise that it would cause a loss of confidence in the process if projects were selected and then did not materialise. We are working closely with our colleagues as we develop the CSNP to ensure we can give as much confidence as possible on the needs case for projects at the point we tender. Once projects are selected for competition they will be "baselined" into future options assessments to ensure certainty.
Will there be an opportunity for bidders to interact with the NESO during the process of identifying indicative solutions?	• Bilateral sessions	• Construction companies	Agree	Third Parties can feed into the NOA process via the Interested Persons process. This will be refreshed under the CSNP. Further opportunities to interact will come through a significant market engagement process in advance of tender launch, and through queries during the tender stage.
Will the power factory model be shared at PQ stage? It would be appropriate to give bidders a tool they can use to test options against.	• Bilateral sessions	• Construction companies	See commentary	When a bidder completes the PQ process and an NDA is signed, they will then be provided with models.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
What would happen if a project did fall out of CSNP projects scope?	• Bilateral sessions	• TOs	See commentary	Post Stage Gate 2 (tender launch), projects will be baselined in the CSNP therefore giving certainty.
For overhead line refurbishment how do you manage investment versus competing a need?	• Bilateral sessions	• Equity investors	See commentary	Overhead line refurbishments would not meet the criteria for early competition as they would fail the separability criterion.
Assuming that the rationale for early competition is that it offers a cost benefit compared to delivery by TOs, is a comparison against the base case made?	• Bilateral sessions	• Construction companies	See commentary	The CBA compares multiple scenarios all of which are considered in making a recommendation to Ofgem to compete a project.
Where does the CBA fit in and the NOA? Where does the CBA fit into early competition? Is the early competition process done before the CBA, and then the NOA?	• Bilateral sessions	• European TO	See commentary	The CSNP (the replacement for the NOA) will identify the projects/needs that meet the early competition criteria. A CBA will then be conducted on all projects that meet these criteria.
How will the early competition model accommodate for projects with low initial capital expenditure (Capex) and larger operational expenditure (Opex) requirements?	• Workshop	• ENTSO-E • European TSOs	N/A	The suitability of a project for early competition will be assessed based on the criteria set out in the tender regulations, and then subject to a CBA. Both Capex and Opex costs can be considered in the CBA.
The size of the pipeline is crucial to attract players to the early	• Bilateral sessions	• Equity investors	Agree	We agree that a clear pipeline of projects will help to attract interest to early competition

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
competition market, particularly in the supply chain.				and the new generation of network transmission assets required in the UK. The number and cadence will be considered to support investors and supply chain considerations.
When selecting the first project for competition, very large or challenging projects may have less appeal for a first of a kind process.	• ESO CSAT survey	• ESO CSAT survey	N/A	We will identify the most appropriate first project based on several factors including delivery programme, construction deliverability, and consenting risk.
Politically challenging locations would not be an issue.	• ESO CSAT survey	• ESO CSAT survey	N/A	
What is the counterfactual in the application of the CBA? Incumbent TO EISDs should not be relied upon.	• ESO CSAT survey	• ESO CSAT survey	N/A	The additional studies undertaken during the project selection process will determine a likely CATO delivered EISD for the factual case. TO EISDs are used in the counterfactual case.
Early competition requires significant development phase commitment. Projects will need to be certain to attract bidders.	• Bilateral sessions	• Construction companies	Agree	We are working closely with our colleagues as we develop the CSNP to ensure we can give as much confidence as possible on the needs case for projects at the point we tender. Once projects are selected for competition they will be “baselined” into future options assessments to ensure certainty.
It would be helpful to share the shortlist of projects with the market to give confidence in the process.	• Bilateral sessions	• Equity investors	Agree	Network planning processes will provide a more definite signal to the market of projects which are eligible for competition on an

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
				enduring basis. As an example, this was done for the publication of Beyond 2030 with an appendix of projects eligible for competition. Ofgem then consulted on the regulatory treatment of all projects including a shortlist.
The presence of a connection offer gives a signal to the market that a project is likely to go ahead.	• Bilateral sessions	• TOs	Agree	Connection offers will be a consideration in the selection of a project and the specific required in service date.

Technical specification

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Does the NESO expect that bidders will price only on the basis of the indicative technical solution identified?	• Bilateral sessions	• Construction companies	Agree	Bidders will need to bid based on their proposed solution. We appreciate this has challenges driven by the early nature of the competition, hence we have introduced a (post-preliminary works) repricing mechanism within the model. This is known as the post-preliminary works cost assessment (PPWCA).
Narrowing down to a particular interface site could limit innovation.	• Bilateral sessions	• TOs	See Commentary	The model we develop for early competition will allow innovation. We would only constrain bids where there is a need as identified through the network planning process.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Significant amount of information will need to come from TOs resource, this does not sit in price arrangements.	• Bilateral sessions	• TOs	N/A	The arrangements through which incumbent TOs will support the early competition process will need to be discussed and agreed with Ofgem.
Would bidders with sufficient information undertake studies to ensure Security and Quality of Supply Standard (SQSS) compliance?	• Bilateral sessions	• TOs	See commentary	Bidders will need to ensure SQSS compliance.
How will the interface details be provided for a solution that crosses a boundary?	• Bilateral sessions	• Equity investors	See commentary	This detail will be obtained from the TO via the NESO.
Would there be a design for the power poles, that they need to look a specific way?	• Bilateral sessions	• European TO	See commentary	The CATO would need to comply with the technical specifications of the incumbent at the interface point, but the CATO can develop their own design on the rest of the network. In practice, the physical appearance and profile of the assets may be affected by the outcome of the planning application process, but this would be led by the CATO, allowing it to amend and develop its design during the preliminary works phase.
Would early competition include assets such as extensions to existing assets?	• Bilateral sessions	• Engineering and	See commentary	It would depend on how separable the new asset is. This would need to be assessed on a case-by-case basis.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
		professional services firm		

Provision of models in the specification

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
The NESO should consider the risk of bidders producing a solution but it not providing the output required. Consider how early engagement could limit compliance issues.	• Bilateral sessions	• Construction companies	See commentary	The output required will be clearly defined in the specification. Bidders will have access to network models following PQ stage and therefore will therefore be able to test outputs before submission.
Will you limit the network model that is supplied document to power factory or will other power system tools be shared too?	• Bilateral sessions	• TOs	See commentary	We will share the power factory model only.
How will the Electricity Ten Year Statement (ETYS) model capture generation background and demand e.g. winter peak background as scenarios that bidders must address?	• Bilateral sessions	• Energy and Utility Investment company	See commentary	At present the ETYS model will be based on the most stressed time of year, e.g. the winter peak. However, the network capability team is working on a year-round model. For early competition we will try to utilise the most appropriate model available at that time.
Will you ask for IT and security type assurances before sharing the network model?	• Bilateral sessions	• Engineering and	See commentary	Yes, further detail will be provided on launch of tender.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
		professional services firm		

Commercial model

The post-preliminary works cost assessment (PPWCA)

Purpose of the PPWCA

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Under the Pathfinders process (Stability 2), several companies bid with different providers each having different views. The PPWCA should not equate to bidders having to tender again for the same work. Bidders are unlikely to go through this again, especially given the additional costs this would incur.	• Bilateral sessions	• Construction companies	Agree	The PPWCA will not equate to a re-tendering process. The intention of the process is to update the CATO's costs to reflect the outcome of the preliminary works phase, not to reassess the award of the contract. The cost information prepared at this stage in the process will likely be similar to pre-construction cost information prepared by a contractor in another type of project.
Bigger organisations may embrace the repricing process, but smaller organisations may move away.	• Bilateral sessions	• Construction companies	Disagree	There are several reasons behind the application of the PPWCA. This includes ensure that any consumer benefit is captured; that bidders (of any size) are renumerated for reasonably unforeseeable cost increases; and to ensure compliance with procurement legislation.
Will early competition projects have a low risk, low return profile similar to Offshore Transmission Owner (OFTO) projects, or will the risk and	• Bilateral sessions	• Equity investor	See commentary	Under OFTO projects, the successful bidder operates and maintains an offshore asset which has already been constructed. This is a form of very late competition.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
return profile be higher accounting for the fact that the CATO would need to undertake the preliminary works (planning, site investigations etc.)?				Under early competition, the successful bidder will need to complete preliminary works (this includes detailed design, planning and consenting) and construct, operate and maintain the asset. We expect the that the risk and return profile will likely be higher than OFTOs. This will reflect the additional obligations placed on bidders.
Early engagement as part of early competition will result in different solutions to identify cost benefit savings. Allowing time for early engagement will result in innovations.	• Bilateral sessions	• Technology suppliers	Agree	Once a project is confirmed to go through early competition, a pre-tender phase will commence. This will involve a significant market engagement process in advance of tender launch. This will involve opportunity to engage in respect of the needs case and solution, preliminary works, key project risks and other factors with the potential to influence project costs and the opportunity for innovation.
If the risks on preliminary works (pre-PPWCA) are too high, then how will competition add value? For example, if competition could drive a 20-40% cost reduction, but bidders must add a 30% risk premium to account for risk, this	• Workshop	• ENTSO-E • European TSOs	Agree	We agree that bidders must be able to price and manage risk efficiently in the delivery of early competition projects. We are seeking to implement a suitable and efficient risk allocation that will enable bidders to price risk efficiently in their tender submissions. The proposed process will make an allowance for indexation, limiting the need for bidders to

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
may affect whether Value for Money (VfM) is achieved.				price this into tender submissions. We have also considered the likely size of bidders' risk premia and the likely accuracy of cost estimates submitted at tender stage (prior to the completion of preliminary works) in considering the size of a potential cap on upward adjustments in the PPWCA. We also note that projects delivered by incumbent TOs would not necessarily have a lower risk during preliminary works than those delivered by CATOs.
We are comfortable taking development phase risk, particularly once a licence has been secured. As an alternative to the PPWCA process, could a model similar to interconnectors be used, where the CATO would be reimbursed for preliminary costs (with an appropriate markup) at financial close?	• Bilateral sessions	• Equity investors	Agree	The PPWCA mechanism will be the subject of consultation by Ofgem, however we continue to consider that the PPWCA arrangements proposed are the best option for early competition as it provides the right balance between investor risk and customer protection. We have also proposed an optional preliminary works payment process to help alleviate cashflow risk during this period.

Demonstration of economic and efficient costs for preliminary works activities

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
The approach proposed makes sense, benchmark quotations could be provided to the NESO for cost pricing.	• Bilateral sessions	• Construction contractors	Agree	The NESO will consider a range of evidence to assess bidder cost certainty. Where a question is linked to cost, the technical evaluation criteria will provide a cost estimation methodology.
Currently it is common to demonstrate efficient costs. Civil contractors will want to minimise risk. It may be possible to demonstrate that the consumer has the best value for money, but no-one will swallow risk for the NESO, Ofgem or the consumer.	• Bilateral sessions	• Construction contractors	Agree	We expect to test whether early competition will offer value for money through the Cost Benefit Analysis (CBA) undertaken at the needs case stage (when determining whether the project should be progressed under early competition) and through the selection of the best value bidder in the procurement process. The early competition model assumes that bidders will include provision for risk in their pricing and allows fair adjustment for cost increases in the PPWCA. Bidders will not be expected to swallow risk on behalf of other parties, but to price and manage it efficiently throughout.
An open book approach is the best way to demonstrate that any upward adjustments were costed on an economic and efficient basis.	• Bilateral sessions	• Equity investors	Agree	We have considered the limited stakeholder input received and whether benchmarking is appropriate. We consider it appropriate that (where relevant cost data from the original tender is not available) the Licence Counterparty would apply some form of test.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
				For example the CATO providing evidence (open book) that demonstrates that they have obtained the lowest additional cost while maintaining the standards and timetable set out in the bid, taking into account options to mitigate where possible.

Equity commitment during the preliminary works phase

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
It is very expensive to undertake preliminary works, detailed design and consenting, plus maintain 30% of the project value.	• Bilateral sessions	• Equity investors	Agree	We consider that it is reasonable to require the CATO to post security to cover the preliminary works period. We are not setting a definitive commitment level at this stage; however we suggest that it may be in the range of 10% of construction costs. This is a level akin to that which would typically be posted by a contractor during construction.
Considering the commitment of funds and the length of the PPWCA, ESO should make sure that equity can transfer funds as equity investment will not keep these funds for that time.	• Bilateral sessions	• Equity investors	Agree	We recognise that it may be necessary to allow transfer of funds during the process. The process and conditions by which this would occur will need to be set out in the tender process and in the licence.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Two years between equity and financial close is considered quite long. It should be considered that post preliminary works more equity may be needed.	• Bilateral sessions	• Equity investors	Agree	It will be for bidders to determine their expected costs to deliver the project. We would expect bids to include the reasonable costs required to complete the preliminary works phase.
Helps that the model does not require debt funding to be raised at the start, but the performance bond might be an issue for very large projects.	• ESO Customer Satisfaction (CSAT) survey	• ESO CSAT survey	Agree	The performance bond is an important part of the early competition model, helping to ensure that projects continue into construction. However, for very large projects, we have indicated that bespoke arrangements may be appropriate.

Cost items and drivers with a material bearing on re-pricing

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
The cost of key components can vary significantly (sometimes daily). Appropriate provision should be made to account for this in the PPWCA.	• Bilateral sessions	• Equity investors • Construction companies	Agree	We are proposing to use various appropriate inflation indices to provide a mechanistic approach to managing inflation risks as the first step in the PPWCA process. The indices that will be used during the PPWCA will be determined at the outset of the tender process by the Procurement Body. Bidders will be aware of these and can prepare their bids accordingly
It should be clear whether ground conditions would be defined as	• Bilateral sessions	• Construction contractors	Agree	The test of reasonably foreseeable and reasonably unforeseeable would cover

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
foreseeable or unforeseeable for the purpose of the PPWCA				significant changes driven by the emergence of new information that is fundamental to the design. Having undertaken an appropriate level of due diligence if there are fundamental changes to ground conditions upon site visit and investigation – changes which could not have been identified from desktop studies of prevailing ground conditions – it would likely be classified as reasonably unforeseeable.
Ground conditions could be foreseeable or unforeseeable. It will depend on the project and the time available for ITT.	• Bilateral sessions	• Technology suppliers	Agree	
Price certainty will not be possible until ground investigations (boreholes and other underground surveys) are complete. Contractors will not take risk on pricing before this is complete.	• Bilateral sessions	• Construction contractors	Agree	The process for making upward and downward adjustments to the tender revenue stream (TRS) as the result of changes in underlying construction costs will be a three-stage process including a test on whether the costs have changed for a reason which could not have reasonably been foreseen by a competent bidder following good industry practice. Contractors will not take on the ground condition risk if the appropriate level of due diligence was taken, although there will be a mechanism to avoid consumers bearing the entirety of any cost increase.
Labour – early competition will be shopping in a small pond of specialised people. Resources need	• Bilateral sessions	• Construction contractors	Agree	We recognise that recent market conditions have seen significant variability in costs and

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
to be grown, as labour inflation is likely to outstrip other cost rises.				unexpected levels of inflation, this is a broader issue than just early competition. We therefore propose to use various appropriate inflation indices to calculate an indexation allowance at the PPWCA. To comply with procurement law, these indices will be set out at the tender stage and the approach will be predefined. Bidders will therefore be aware of the available indices. This will allow them to price the project with consideration of any allowable future adjustments. Beyond this adjustment, and the other limits on adjustment under the PPWCA, bidders will bear the risk that their bids are priced efficiently. We consider that bidders are best placed to manage pricing risk and will be able to provide effective submissions.
Wider materials and specific materials (aluminium, copper, steel), aggregates and normal construction materials. For example, HS2 bulk purchased aggregate.	• Bilateral sessions	• Construction contractors		
Metal costs can vary considerably with historic shifts of £200-£300 per day. Costs can vary between an offer and a contract and suppliers may not take risks on metals.	• Bilateral sessions	• Technology suppliers		
Metals and material pricing, energy consumption. Some costs will depend on the bidding consortium and who is taking the risk.	• Bilateral sessions	• Technology suppliers		
Metal prices are a big risk and there needs to be contingency. With a long-term project this will be a big contingency to minimise, but a realistic quotation from the supplier will follow. Once a purchase order is received from a client, metal prices can be held for one year, but can be	• Bilateral sessions	• Construction contractors		

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
maintained for 3-4 years if an additional fee is paid.				
Project management costs should be adjustable through the PPWCA process.	• Bilateral sessions	• Technology suppliers	Disagree	Adjustments under the PPWCA will be made to reflect costs which were not reasonably foreseeable. Project management costs are within a bidder's control, and we therefore expect the efficient cost of this to be included in a bidder's submission.
The risk pot should be adjustable through the PPWCA process	• Bilateral sessions	• Technology suppliers	Agree	The risk pot will be calculated as a percentage of the revised construction price. Therefore, it is automatically adjusted.
Consider the benefit of separation of pricing for various risks. For Silvertown tunnel you did not see risk priced in the main bid instead separating into a margin component.	• Bilateral sessions	• Equity investor	Disagree	The early competition model is different to Silvertown, which was procured 'late', meaning it was possible for bidders to price risk differently. We expect that early competition bids will reflect a degree of risk. However through the PPWCA, the CATO will have the opportunity to evidence where specific risks have been identified during the preliminary works phase (which could not otherwise have been anticipated) resulting in a need to adjust the design and amend the expected costs of delivering the project.
Insurance costs can be an issue. For example, offshore insurance	• Bilateral sessions	• Equity investors	Agree	Insofar as there are changes to the project which arise during the preliminary works phase

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
costs keep rising and coverage keeps decreasing, this needs to be considered.				and affect the design of the project, insurance costs may also be impacted. Within the bounds of the PPWCA, an adjustment for changes in insurance may be considered.
Obtaining committed pricing over long timescales is difficult to achieve in the current environment. In some cases, quotes will only remain valid for 1-2 months, which may impact the re-pricing process.	• Bilateral sessions	• Technology suppliers	Disagree	We recognise that it will not be possible to commit prices from the tender stage through to construction, this is partially reflected in the purpose of the PPWCA. The repricing process would occur shortly before the start of construction, at which point the provider would be expected to be able to confirm a price for construction.
It would be best if bidders came to the supply chain early for co-design. Multiple bidders may approach the same supply chain, resulting in multiple bids. The model appears to assume that the supply chain is economic and efficient, but this is not necessarily how the supply chain does business. Certainty of projects and timing is the best way to secure efficient costs.	• Bilateral sessions	• Technology suppliers	Agree	We recognise the need for certainty of projects to secure commitment from the supply chain. We have evolved the approach to the identification of projects which are sufficiently certain to be progressed through early competition to reflect developments in policy and the process by which network needs are identified. By the point at the which projects are tendered we consider that they will have been assessed as sufficiently certain and suitable for early competition. This should enable bidders to engage the supply chain efficiently throughout the tender process and secure commitments
In the global supply chain context, the UK is no longer as attractive as	• Bilateral sessions	• Technology suppliers		

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
it once was. This is due to the time taken for approvals. The supply chain will go where business is easy, and the supply chain will go to companies who are making commitments (ahead of approvals) with cost certainty.				that will facilitate the delivery of the preliminary works and delivery phases.
The appropriate form of contracting should be considered, and standardisation is preferable. Supply chains are often hit with penalty clauses, including uncapped liquidated damages which do not work. A risk share should be devised which is accepted to all parties.	• Bilateral sessions	• Technology suppliers	Agree	A template contract will be developed for use in early competition projects. This will be the basis upon which the specific terms relevant to each project will be negotiated. The project is likely to include provisions which ensure timely delivery, however the extent of any such provisions will be reviewed with potential bidders.
The ability to give a firm price ahead of construction will be proportional to the level of risk in the project. Pricing certainty will reflect bidders' ability to assess and quantify risk.	• Bilateral sessions	• Construction contractors	Agree	We recognise that projects involve risk and that bidders will price accordingly. We also recognise that in the earlier stages of the project it will be more difficult to price accurately; this issue is to be addressed through the application of the PPWCA. However, we consider that the market is best placed to price risk, meaning that adjustments will only be allowed where they could not have been reasonably foreseen.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
There should be a process for lessons learned, with the elements of good implementation captured for sharing.	• Bilateral sessions	• Potential equity investors • Construction companies	Agree	We agree that lessons learned are important and that good practice should be shared. We have recognised that some additional flexibility may be required for the first projects delivered through early competition. We will review the lessons learned from initial (and future) projects and reflect them into the approach taken
PPWCA refinancing risks are allocated to consumer because they would benefit from the repricing upside.	• Bilateral sessions	• Equity investor	Agree	If any refinancing gain were realised, we would expect that consumers would benefit from a proportion of the savings through a reduction in revenues.
The risk of cost increases should be shared between the contractor and the end consumer.	• Bilateral sessions	• Technology suppliers	Agree	The PPWCA process effectively shares the risk of cost increases between the consumer and the provider. Adjustments will be made for changes which were not reasonably foreseeable. This will provide an incentive for the provider to price efficiently for that which is within its control, but limits the need to price risk for cost increases outside of the provider's control.

Indexation

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Foreign indexes should be considered when assessing the cost of materials	• Bilateral sessions	• Construction companies	Disagree	Whilst we recognise stakeholders' concerns about the differences between UK and international indices, as well as issues with currency, there is an inherent challenge in listing all indices across the world and all exchange rates. We therefore propose to use UK indices as well as some key foreign exchange rates (e.g. US Dollars)
More international indexes should be considered. A wider range of indexes would be required, and some room to introduce new items. Foreign exchange risk needs to be considered.	• Bilateral sessions	• Equity investors		
Labour costs are a moving target, difficult to price with changing inflation.	• Bilateral sessions	• Construction companies	Agree	We propose to use various appropriate indexation allowances to calculate the indexation allowance in the PPWCA. This may include indices for specific costs such as labour (for example under BEAMA) transportation and/or material costs.
Transport costs need consideration (e.g. transporting large equipment via B-roads).	• Bilateral sessions	• Construction companies		
The indices suggested are useful	• Bilateral sessions	• Construction contractors		
Engaging the supply chain earlier is generally better, however there are still some issues, e.g. containerisation has gone up by 800% and prices are not coming down. Indices do not always reflect	• Bilateral sessions	• Construction companies		

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
the true price of inflation for diesel, fuel, electricity, and concrete.				
Splitting indices by cost type appears sensible, but it may be necessary to understand more about the types of materials affected to understand whether the approach proposed is appropriate.	• Bilateral sessions	• Construction contractors		
Where you apply indexation from is really important given the potential in construction delays and the possibility of gaming.	• Bilateral sessions	• Equity Investors		
The OFTO market rate adjustment license is a powerful tool with objective data points to ensure commitment from an equity party.	• Bilateral sessions	• Equity investor	Agree	There will be an opportunity to adjust for market rates as part of financial close, which will occur after the PPWCA.

The cap on price adjustment under the PPWCA

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
A 20% cap would be more suitable than the proposed 10% cap.	• Bilateral sessions	• Technology suppliers	See commentary	We have considered feedback received on the need for and calibration of a cap on price adjustment.
A 10% cap is sensible provided that bidders connect with supply chain.	• Bilateral sessions	• Technology suppliers		

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
A 10% cap may be reasonable, but it is not possible to say without the basic parameters of the project, for example the details of ground conditions. Typically bidders would consider the information available, the quality of that information, any associated risks and then price accordingly.	• Bilateral sessions	• Construction contractors		We consider that a cap is appropriate as a mechanism to protect consumers from an open-ended obligation to absorb cost increases, protect the Delivery Body from legal challenge, and ensure that bidders are appropriately incentivised to assess and manage risk. Based on desktop studies, the construction industry would typically expect to estimate costs to within 50% of outturn costs. Typically, the industry would expect to apply a risk premium for construction of c.10%. We therefore consider that a cap of 40% of forecast construction costs (as included in the tender) would be an appropriate starting point for discussion with the market as part of the pre-tender phase. This level of cap would provide consistency with the level of cost uncertainty given the expected maturity of design when bids were submitted. The PPWCA process allows for a risk premium to be applied to construction costs. This suggests that between the Invitation to Tender (ITT) stage and construction start, a 40% cap on construction cost increases should be applied.
How the cap is introduced, and the parameters applied will be important. A cap and collar would normally be sought, assessing the risk profile, who is best placed to manage the risk and if this is the contractor, how this is included in the cost, or how to work with others to manage it.	• Bilateral sessions	• Construction contractors		
10% is too low, when projects have been known to run more than 100% over. Companies will bid knowing there is a cap, which may mean that early competition does not result in savings.	• Bilateral sessions	• Construction companies		
The proposed 10% price cap may drive the wrong behaviours from	• Bilateral sessions	• Construction companies		

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
bidders, encouraging the overstatement of costs to include a margin for risk.				We also note that 40% is a starting point, and the level of the cap for each project is something that would be discussed with industry during the pre-tender stage.
Applying a cap above indexation would make early competition more attractive, but would drive the wrong behaviour from bidders, who would drive for higher initial prices. Bidders may overstate costs by 10% (for example) to include a risk margin in prices.	• Bilateral sessions	• Equity investors		
A 10% cap on adjustment for foreseeable changes and a higher cap for unforeseeable changes may be more appropriate.	• Bilateral sessions	• Construction companies		
The cap must be related to the risk of the project. A 10% cap for everything could be possible in conjunction with a provision for reasonably unforeseeable changes.	• Bilateral sessions	• Construction contractors		
The proposed 10% price cap may be challenging if there are unforeseen complexities. It may be necessary to consider the cap on a project-by-project basis, or to have a	• Bilateral sessions	• Equity investors		

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
caveat for unforeseeable circumstances.				
It may be reasonable to draw a distinction between foreseeable and unforeseeable costs for the purpose of a cap on repricing, however from a costs and materials perspective it would not be feasible to place a cap on re-pricing adjustment.	• Bilateral sessions	• Technology suppliers		
If a cap is applied, some items will need to sit outside of the CAP, for example archaeological finds. If certain risks are not excluded from the cap, contractors will include them in their costs to minimise risk, which defeats the purpose of EC.	• Bilateral sessions	• Technology suppliers		
A 10% cap could be an issue, particularly if there are unforeseen complexities. It will need to be reviewed on a project-by-project basis. A model could be adopted where the bidder proposes the cap and justifies it or breaks down the cap on specific areas.	• Bilateral sessions	• Construction contractors		

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Prices have increased by 10% in the last 3-6 months [comment from Sept 2022]. Nobody will sign up to a cap in the current market, but it might be possible if conditions settle.	• Bilateral sessions	• Construction contractors		
Metals should sit outside of a fixed price or cap as organisations cannot control the market on this.	• Bilateral sessions	• Technology suppliers		
The 10% cap is not an attractive cap, it will not incentivise business. Costs can exceed this, for example the price of copper, labour costs and plastic costs.	• Bilateral sessions	• Equity investors		
A 50:50 share is a fair incentive. Any greater share to the client will disincentivise the contractor.	• Bilateral sessions	• Construction contractors	Agree	We agree that it is appropriate to share any cost saving gains between consumers and the CATO. We propose the retain this mechanism within the PPWCA on the basis that it incentivises bidders to reduce costs wherever possible
Limiting the benefits to contractors from identifying cost savings will limit engagement. A sharing target on basic risk and reward would drive up collaboration and drive down costs.	• Bilateral sessions	• Construction contractors		
Saving incentives are possible with an open book approach, provided that it outstrips the margin.	• Bilateral sessions	• Construction contractors		

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Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
The incentives are good and typical. The successful bidder should try and reduce costs where possible. 50:50 sharing models have been seen, which are viewed positively.	• Bilateral sessions	• Construction contractors		

Competition and bidder legal structure

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Investors would be encouraged to see structures where they can own several special purpose vehicles (SPVs).	• Bilateral sessions	• Equity investor	Agree	We agree the formation of an SPV offers many structural advantages for early competition projects. We anticipate that most bidding entities will likely take this form, however, is the Ofgem policy decision states they are open to alternative approaches provided that the separation and delineation is clear.
If the bid comes with full consortium, would big utilities be precluded from participating in the consortium?	• Bilateral sessions	• Equity investor	See commentary	We will not explicitly preclude any entity from bidding into an early competition process.
At Financial Close, the CATO structure will need to be entirely clean to avoid any historical liabilities.	• Bilateral sessions	• Debt Investor	Disagree	If an SPV is formed, we would expect it to only have project related asset/liabilities at Financial Close. We would expect this to be acceptable for incoming lenders

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
It should be considered that unlike a tightly structured public-private partnership (PPP) there needs to be some flexibility to put more equity and re-financing over time.	• Bilateral sessions	• Equity investor	Agree	The proposal for additional works (set out in the Early Competition Implementation update, Feb 2024), sets out a proposal that would require the project company to have some flexibility to raise additional finance.
It should be considered that in Direct procurement for customers (DPC) projects in the water sector provide equity together with contracting partners	• Bilateral sessions	• Equity investor	Agree	We have considered the precedent set by the DPC model. Akin to DPC, we consider it likely that bidding consortia will include equity and the contractors likely to be responsible for the preliminary works and construction phases. The tender assessments will require evidence of capability both in terms of providing equity financing and in terms of construction capability.
Stakeholder would expect if an equity bridge facility were used, the provider of the equity bridge is fully subordinated to the senior facilities and has no right to default the project.	• Bilateral sessions	• Debt Investor	N/A	This issue is to be further considered in drafting project licence.
CATOs should be required to maintain a credit rating and sufficient independent directors and embed a consumer voice. Otherwise SPVs are 'paper thin'.	• Bilateral sessions	• TOs	N/A	We anticipate that the debt competition will occur only after the preliminary works phase is complete. Accordingly, bidders will not be required to maintain a credit rating during the preliminary works phase.

Public

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
				Whether or not a credit rating is required for construction will depend on each project's financing structure, however we do not intend to make this a requirement. Bidders will need to ensure that their structure enables them to pass the PQ and ITT stage assessments.

Revenue period

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
How do you satisfy themselves that a successful bidder will be in place for 45 years to run this asset? The costs are only recovered at the 45th year.	• Bilateral sessions	• TOs	Disagree	We now propose a maximum 35-year term, rather than the 45 years previously proposed.[7] Whilst this period is longer than may be preferred by some (bank) financiers, our engagement suggests that this term will still be attractive to other financiers (e.g. bonds). It is also not the case that the costs will only be recovered in the 45th year. The CATO will earn a return throughout the project, subject to performance.

[7] The initial proposal of 45 years was set out in the Early Competition Plan (April 2021). Our updated proposal followed detailed engagement through implementation and was published as part of the Early Competition Implementation update (February 2024).

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
For debt, the delivery body, NESO might not get the best value debt for 45 years. A more typical timeframe is 25-30 years.	• Bilateral sessions	• Equity investor	N/A	Our engagement has shown that debt is available at a range of tenors, including at the 35-year maximum tenor now proposed.
A debt tenor of 35 years is more likely to attract institutional investors as it is perceived to be long for bank lending	• Bilateral sessions	• Debt Investor • Equity investor	Agree	We recognise that a 35-year tenor may be better suited to certain types of investors. However we consider that this tenor better suits the nature of the assets and the treatment of the project at the end of term.
A debt tenor of 35 years is too long for the bond market. It should be no more than 20 years or carry higher returns.	• Bilateral sessions	• Debt Investor	Disagree	Our engagement has shown evidence of both bonds and bank debt available at longer tenors than 20 years.
Isolating and delaying debt competition provides difficulty on pricing the residual value. Investors think about timings and whether it is a long term and if they can access the long-term debt strategy. Given the size of these projects that important.	• Bilateral sessions	• Equity Investors	Disagree	Our engagement has shown it would be too early to engage debt in the process during the preliminary works phase. Instead, debt should be brought in once detailed design is complete and costs have been updated through the PPWCA. We consider that this will enable efficient debt pricing against known construction costs and forecast terminal values.
Balloon payments at the end of the term will present difficulties in attracting finance	• Bilateral sessions	• Debt investor	Agree	Our updated position proposes that only a small residual value payment will be made at

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Regarding residual value payments, taking risk on a larger amount, and relying on sufficiently small deductions, would be challenging for senior lenders for a payment so far into the future in a new sector	• Bilateral sessions	• Debt Investor		the end of the term, equivalent to the asset's remaining life. We consider that a 5/40ths payment at the end of the 35-year period would be sufficiently small to allay finance concerns around a larger balloon payment.
A key consideration will be how the residual value will be underpinned	• Bilateral sessions	• Debt Investor	Agree	We expect that the residual value will be closely tied to the expected condition of the asset at the end of a 35-year term. The residual value will therefore be equivalent to 5/40ths of opening asset value, subject to any rolled-up payment deductions or poor asset condition for which the costs should be offset.
Combining the amortisation and RV in a single tranche is sometimes an easier presentation for debt providers	• Bilateral sessions	• Debt Investor	Agree	We consider that it is for the CATO to structure and present its debt however it sees fit.
Decommissioning will add to project risk and writing off security to decommission will not be helpful. Suggesting a 5-10 year period to build up a decommissioning pot as a better alternative to the security for 45 years.	• Bilateral sessions	• Equity investor	N/A	Consideration of asset treatment at the end of term has helped to develop thinking. We now consider that the assets are likely to be refurbished and re-tendered, meaning a decommissioning fund is not required.

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Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Consideration should be given to the decommissioning pot and whether it moves with inflation.	• Bilateral sessions	• Equity investor		
Asset ownership needs to be considered. Assets should not be transferred at nil value at the end of contract term.	• Bilateral sessions	• Equity investor	Agree	Our proposal is that a residual value payment will be made at the end of the term, commensurate to the value remaining in the asset at the time.

Payment mechanism

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Indexation needs to be considered in detail	• Bilateral sessions	• Equity investors	Agree	We agree that contractual provision should be made to manage indexation. In line with OFTO and PPP structures, we propose to link the early competition TRS to inflation. This is likely to be the Consumer Prices Index including owner occupiers' housing costs (CPIH), within certain parameters.
Would regional differences in contracting costs be considered?	• Bilateral sessions	• Debt investors	See commentary	We consider that bidders are generally best placed to manage their costs of contracting.
Would base and swap rates on the refinance be a part of the sharing mechanism?	• Bilateral sessions	• Equity Investors	See commentary	We are currently in discussion with Ofgem on how the licence which will impact these dynamics.
If the CATO's substation goes down and impacts adjacent TO, will they	• Bilateral sessions	• Equity investors	Agree	We agree that the CATO should be incentivised to maintain availability through a regime of

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
be penalised? Further to that point, if penalties apply, sufficient incentives should also be there.				incentives and deductions. We intend to apply an approach like that which has previously been applied to OFTO projects.
Consider that an adjusted TRS could allow 'unscrupulous' bidders to skew costs and it would be advisable to avoid a race to the bottom for costs.	• Bilateral sessions	• Equity investors	Agree	Bidders will be required to provide their proposed TRS as part of the procurement process. This stage will provide the opportunity to review the TRS and understand whether any such skew has occurred. The direct comparability of the TRS model (comparing one bidders revenue stream against another's) should also help to identify any factors which may call a bidder's submission into question.
Clarity needed on if a successful bid from a TO would be through RIIO or TRS.	• Bilateral sessions	• TOs	Agree	We intend to follow a TRS model for early competition. If a TO bids for a project through early competition and is successful, they would receive a TRS for that project.
Returns of a TO should not be compared to the returns that a CATO would require as it is just one asset. This should justify a higher level of return.	• Bilateral sessions	• Transmission asset owner	Agree	Under the TRS model, bids will only be compared against those of other bidders. There will be no direct comparison against the cost of capital for an existing TO.
Availability bonus for CATOs appears as a bonus for just doing their job.	• Bilateral sessions	• TOs	Disagree	The availability incentive structure takes learnings from the OFTO model and provides an incentive for the CATO to maintain greater-than-expected asset availability, which ultimately benefits consumers.

Electricity transmission licence / contract

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Financial institutions are likely to find engagement with a contract rather than a licence easier.	• Bilateral sessions	• Equity investors	See commentary	The outcome of an early competition tender is a licence awarded by Ofgem. We recognise that bidders may be more familiar with contracts than licences, however we would expect a prospective CATO to familiarise itself with the terms of the relevant industry licences, as these will be key to the effective operation of the project asset(s).
Ofgem's obligations to maintain a creditworthy NESO allows the view that them as a very low risk counterparty.	• Bilateral sessions	• Debt Investor	Agree	We consider that Ofgem's obligations in respect of the NESO should help to ensure that counterparty risk is minimised.
If the NESO becomes the counterparty, credit worthiness should be considered. What happens in a potential early termination, circumstances and options for re-tender, or value of the asset?	• Bilateral sessions	• Equity Investors	Agree	
Mirroring other similar regimes, such as OFTOs, would be helpful for bidders clarity.	• Bilateral sessions	• Equity Investors	Agree	We agree that the OFTO model is a valuable precedent for the early competition model. Many of the key features of OFTOs are reflected in the approach we have set out for the implementation of early competition.

Additional works

Scope and timing of additional works

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
The Additional Works described looks like they have the potential to be a significant change on the project. The potential scope of additional works would need to be well understood and documented; anything too material may be challenging to pre-agree in this way.	• Bilateral sessions	• Debt Investor	Agree	Our approach to additional works has advanced from that originally proposed in the Early Competition Plan (April 2021). Our revised proposals offer the CATO different options depending on the relative size of the additional works when compared against the original project size. These options have the potential to alleviate the obligation to provide funding for additional works. However, we have retained the flexibility for CATOs to fund and deliver additional works should they choose, as we understand this option may be attractive for some bidders.
The size and allowed timing of additional works needs to be considered – if additional works can come in much later in the process it might deter some investors	• Bilateral sessions	• Debt Investors	See commentary	We consider it important that CATOs have an obligation to facilitate wider network development post-construction. This is in line with obligations on the incumbent TOs. We do expect that bidders will be able to determine a technical limit to their liability during the tender stage (as there is a limit to the scale of works that a CATO could be required to deliver before the works constitute a separate project). This should allow investors to

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
				properly assess the opportunity and consider their appetite before bidding.
There would need to be a process to handle disagreements and compensation if there are delays in the planning and consenting process driven by a third party e.g. a planning authority.	• Bilateral sessions	• Equity Investor	Agree	Our expectation is that the bidder presents the delay case in the initial stages therefore allowing the bidder to reject the of additional works.
Additional works obligations may require the CATO's design team to be flexed upwards, depending upon the complexity of the works required.	• Bilateral sessions	• Equity Investor	Agree	The proposed additional works approach means that, above a threshold, there will be an option to receive milestone payments rather than a Tender Revenue Stream.
Are you considering a separate bid criterion on the ability to take on additional works? Being able to demonstrate that bidders are likely to be supportive can align interests.	• Bilateral sessions	• Equity Investor	Agree	We consider it important that CATOs have an obligation to facilitate wider network development post-construction. This is in line with obligations on the incumbent TOs. By clearly defining the extent of the obligation we consider that bidders will be able to give due consideration to their potential future obligations at the tender stage. This will result in the appointment of CATOs who are supportive of wider network development.
It will be key to provide certainty to CATOs whether additional works are	• Bilateral sessions	• Equity investor	Agree	Network planning documentation will define the future pipeline of the infrastructure

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
likely to be forthcoming, ideally in the preferred bidder stage.				required. This should give some insight in to likely additional works requirements. Furthermore, the updated approach to the CATO's obligations to fund additional works and the timing at which these obligations will apply should also provide an additional level of comfort around the extent of any potential obligations.
The additional works process would need to align with the procurement rules and regulations and mitigate any risk of procurement challenge.	• Bilateral sessions	• Equity Investor	Agree	Procurement legislation is under review and the NESO is working with Ofgem to ensure this issue is mitigated. The additional works process is likely to be considered similar to a contractual re-opener mechanism under law and therefore will not impact what was originally procured.
There could be a lot of separate connections requests that create a risk associated with the volume of applications outstripping ability of CATO to respond. It would be sensible to have one or two windows where requests for connections could be made. This is the system in the US.	• Bilateral sessions	• Equity Investor	Agree	We are aware of this concern. The consideration of connections requests would be separate from the competition process but would be part of the wider connections process. This feedback has been shared with the NESO Connections team who are leading the work on the current Connections Reform.
An obligation for connection is time consuming and costly. While it	• Bilateral sessions	• Construction company	See commentary	

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
provides a good natural growth, there is little capacity to increase capability and concerns with maintaining availability.				
Undertaking earlier engagement to understand if any developers might want to use the asset once the design is known, might mitigate some of the risk to additional works.	• Bilateral sessions	• Equity Investor	Agree	The tender itself will not build in any anticipatory investment; however relevant elements may be considered in the CSNP. During the preliminary works phase the CATO will have an opportunity to undertake engagement to identify developers who may wish to make use of an asset prior to the commencement of construction.

Financing additional works

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Is the CATO obligated to carry out the works or will there be discretion dependent on the size and risk profile?	• Bilateral sessions	• Equity Investor	See commentary	If the additional works did not meet the requirement for competition, then the CATO would be obliged to do the work (all TOs must facilitate access to their network as per their licences). If the CATO could demonstrate that the additional work would delay delivery of the main project, then they may be able to justify the work not being done at that point in time.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
If CATOs cannot access debt finance to fund additional works who will hold the obligation?	• Bilateral sessions	• TOs	See commentary	Up to the proposed 20% threshold, the CATO would still be obliged to carry out the work. However, we consider that by defining the nature and potential scale of the additional works obligation in advance, this will help to avoid a situation wherein the CATO is unable to fund the additional works obligation. If the additional works exceed the proposed cumulative threshold of 20% of the original project capex, then our proposal is that the CATO would have the option to receive milestone payments rather than to finance it itself.
Additional works are best financed with debt rather than bonds	• Bilateral sessions	• Debt Investor	See commentary	We are not seeking to prescribe the CATO's source of debt funding. This means each CATO will be free to pursue whichever financing routes it considers optimal.
Regarding the funding and CAP mechanism, there are different routes that can be taken: (a) a standby facility for bidder; or (b) a non-committed portion of the project. Option (b) has the benefit of sharing the impact of interest rates	• Bilateral sessions	• Equity Investor	See commentary	The proposed approach involves an obligation to fund additional works up to 20% of the original project value. This is akin to (b) in the comment proposed, as the additional works obligation may never be exercised. However there will be an obligation on bidders to evidence that these funds could be available as required.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
and market movements and you have the structure there to upsize the debt				
Need to consider that the cap for which CATO would be obliged to finance additional works would be different if the cumulative cap is applied at the bid or the PPWCA stage.	• Bilateral sessions	• Equity Investor	See commentary	The cap on the obligation to finance additional works will reflect the value of the project following the completion of the PPWCA.
If additional works require new financing, the CATO is unlikely to be able to source it at the same price as inbuilt in the original TRS. Consider the impact of additional works on financing risk.	• Bilateral sessions	• Equity Investor	Agree	We have proposed a series of thresholds which could be used to determine the extent to which the CATO would either be obliged to or can finance additional works. We expect CATOs to consider the extent of their obligation to finance additional works at bid stage. We have provided a methodology to govern the process by which further works beyond this threshold would be financed.
If an investor is looking at projects with credit ratings of BBB+/A- (OFTOs), a key question is how the increase in debt up to 20% for additional works can be rated.	• Bilateral sessions	• Equity Investor		
Consider the value in milestone payments if the pure CATO finance option considered.	• Bilateral sessions	• Equity Investor	Agree	For additional works between 20% and 50% of the cost of the original works, the CATO will have the obligation to provide additional finance or to opt for milestone payments.
The key issue is to not push down too much risk on CATOs. If CATOs	• Bilateral sessions	• Equity Investor	Agree	We agree that it is key to define the extent of the additional works obligations, and not to

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
will be exposed to interest rate, inflation and delay risks, additional works will be difficult to undertake.				expose CATOs to risks which could unduly affect the project's cash flows. Interest rate and inflation risks are pricing risks which would be mitigated under the preferred unit cost pricing approach, as it would be subject to an indexation adjustment under the PPWCA.
The CATO would look to understand the materiality of the construction risk, including how much risk sits with the CATO and how much can be transferred to a trusted party.	• Bilateral sessions	• Debt Investor	Agree	We expect the CATO to give due consideration to the project's risk profile and the risk profile of any potential additional works.
The overall investor risk exposure from introducing excess additional works has to be considered as investors who view early competition as low risk might suddenly be exposed to a lot more risk due to additional works	• Bilateral sessions	• Debt Investor	Agree	Our proposals provide a boundary to the risk exposure of additional works. This offers milestone payments (and possibly a bespoke arrangement with Ofgem) for works above the 20% threshold.
Delays on the overall process should be considered, as should the process if there are lost revenues or developers face additional financing costs – debts might need to be drawn down at certain dates and if changes to	• Bilateral sessions	• Equity Investor	Agree	Scoping of additional works is likely to happen during the preliminary works phase before going to the lenders. This should mitigate much of the risk of disruption to the debt financing profile. We have proposed that CATOs should be relieved of their obligation to consider

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
design happen, how do we ensure that obligations are met?				additional works during construction of the original asset(s) where this would impact the delivery timescales. This should ensure that additional works do not jeopardise the delivery the original project.

CATO – TO connections process

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
The overarching principles which govern CATO-TO connections need to be clear. This will help to avoid getting stuck in the dispute process.	• Bilateral sessions	• Equity Investor	Agree	Since this bilateral we have with stakeholders to develop a clear, transparent connections process. This is currently passing through the Code Modification process.
An independent commissioner should be considered, or co-ordination by the NESO.	• Bilateral sessions	• Equity Investor	Agree	We have included an Independent Engineer in the process described above to perform this function.
There could be a lot of separate connections requests that could place a burden on the CATO. There is a risk associated with the volume of applications outstripping ability of CATO to respond and it would be sensible to have one or two windows where requests for connections could be made.	• Bilateral sessions	• Equity Investor	See commentary	We are aware of this concern. The consideration of connections requests would be separate from the competition process but would be part of the wider connections process. This feedback has been shared with the NESO Connections team who are leading the work on the current Connections Review. The output from the recent Connections Reform consultation is due in Q4 2023.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Several existing models were suggested as models to follow for the CATO-TO connections process: • Interconnectors • DNOs • Affected TOCOs	• Bilateral sessions	• Equity investor	Agree	All these models were considered; however, they did not have the level of prescription and clarity required. We have therefore designed a bespoke model which takes on the learnings of these models where appropriate.
There needs to be a process which aligns the interest of CATO and incumbent TO	• Bilateral sessions	• Equity investor	Agree	The process we have developed gives TOs and CATOs equal status.
The CATO is likely to have a leaner team than the incumbent TO. This may present challenges in administering connections.	• Bilateral sessions	• Equity investor	Agree	We are aware that the connections requirements for each project will differ. The process is set out clearly as part of the connections process. The CATO can choose how it supports the process; this may mean the use of third-party consultants/contractors on an as needs basis.
The statutory timescales and deliverables should be prescribed in the connections process.	• Bilateral sessions	• Equity investor	Agree	Every project will differ, so it is not possible to prescribe all timescales for the generic process. However, the process we have designed has templates to populate timescales.
TOs will need to be provided with a significant amount of data to facilitate connection, this needs to be specified in the STC	• Bilateral sessions	• Equity investor	Agree	The process we have developed has data exchange mechanisms.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
There should be measures (potentially including penalties) to ensure that parties are held to the terms of the connection agreement.	• Bilateral sessions	• Equity investor	Agree	We have included principles that require commitment to the deliverables and referral to the Authority (Ofgem) if not met.
Connections previously only involved two parties, the TO and the NESO. Early competition introduces a third party – the CATO. The contracts and interfaces between the NESO, CATO and connecting TO will need to be set out clearly managed effectively if the model is to be effective.	• STC workshop	• STC members	Agree	We have developed a clear and prescriptive process to manage the introduction of a third party into the connections process.
The NESO should consider which party is best placed to take a lead role in commissioning CATO assets; the CATO itself, the existing TO or the NESO.	• STC workshop	• STC members	See commentary	All parties have equal status. However, where appropriate we have specified where a particular party should lead.
Consideration should be given to which body should be accountable for commissioning. It may be that the NESO should retain oversight and accountability for the commissioning process, even if the	• STC workshop	• STC members	Agree	To facilitate the commissioning phase of the process we have developed, the approach we have proposed places the NESO in a coordinating role.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
practical interface exists between an existing TO and a CATO.				
CATOs may have different levels of integration with the National Electricity Transmission System (NETS) in comparison to OFTOs. Flexibility should be maintained in the arrangements for transmission investment plans to account.	• STC workshop	• STC members	Agree	The process we have developed is prescriptive. However, it retains flexibility for each individual connection project.

Termination and CATO of last resort

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
What will you do if the successful bidder is significantly delayed or fails?	• Workshop	• ENTSO-E • European TSOs	See commentary	We have considered the risk of severe delay and termination and the impact these events may have. It is important that termination is possible, as this provides an important incentive upon the CATO to deliver the project in a timely and efficient manner. In the event of delay, contractual mechanisms would act to incentivise the CATO to rectify issues. If these measures fail, and depending on the stage of the project, termination provisions would be triggered. In this case, the

	asset would either be transferred to a new CATO, or to the CATO of last resort.

End-to-end process

The procurement process

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
It could be expected that TOs would win the first couple of bids due to their experience. It is difficult to see how a CATO can develop capabilities that TOs already have within the same timeframe.	• Bilateral sessions	• Construction company	Disagree	We are committed to conducting open, fair, and transparent procurement processes for early competition. The process should not unfairly benefit the incumbent transmission operators, should they participate in the competition. We also consider that there is a wealth of experience across the sector, both in the UK and internationally, which should enable bidders to form competitive consortia.
The three-year tender process seems long – too expensive to bid with limited information.	• Bilateral sessions	• Construction company	Disagree	We have conducted a comprehensive bottom-up review of the process, as well as combining the two stages of the ITT into a single stage, and have determined that a process of around 2 ½ years is required. As the Delivery Body, we will aim to progress through the tender stages quickly as we can.
NESO should consider placing money towards the tender for better quality bids	• Bilateral sessions	• Equity investor	See commentary	This would need to be determined as part of the pre-tender market engagement process.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Will a stipend be offered to bidders?	• Bilateral sessions	• Potential equity investors • Construction companies		
Large tender rounds have a significant cost associated. Companies will think carefully before spending that money.	• Bilateral sessions	• Technology suppliers	Agree	We recognise that potential bidders will carefully select which opportunities to pursue. We consider that by providing a clear pipeline of opportunities through the network planning and project identification processes, bidders will be able to assess the upcoming pipeline and plan their participation appropriately.
What tender evaluation criteria are going to be used given that there will be no certainty on costs and activities such as planning?	• Bilateral sessions	• Construction companies	See commentary	There will be a commercial element to the tender evaluation. The technical evaluation is effectively a proxy for the certainty of the commercial submission based on the level of design given and the activities required to reach a final design. There will be a PPWCA to re-price at a later stage, and the NESO will need to consider the risk of changes in that later cost assessment as part of its tender process.
Consider the benefit of allowing bidders the opportunity to present on their solutions part-way through the bidding process and give the	• Bilateral sessions	• Construction companies	See commentary	We have considered this as a potential approach, however given the level of detail bidders are expected to be able to provide as part of an early competition procurement

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
procuring body the opportunity to raise any issues they may have.				process, we do not consider it necessary to include a presentation process at the Invitation to Tender Stage.
The scenario to avoid is if bidder says theirs is the best solution with "good" numbers but they've underplayed their habitat / environmental impact which risks the project.	• Bilateral sessions	• Planning expert organisation	Agree	We have considered the level of detail and information likely to be available to bidders at the tender stage, including in relation to environmental risks. This will play a key role in setting expectations and defining what future issues could reasonably have been foreseen at that stage. The PPWCA will adjust only for changes which could not have been reasonably foreseen at the tender stage. This will mitigate the risk of cost changes being raised which should have already been addressed.
What happens to timelines at the point where there's an ITT shortlist, with several bidders and none are successful? Will all the timescales expand and re-set?	• Bilateral sessions	• TOs	See commentary	We consider that the pre-qualification criteria should ensure that only those who are suitably qualified will enter the competition. This should ensure that the bidders can produce a submission which is likely to be accepted at the evaluation stages. If the procurement process fails, the NESO would need to review and decide upon the appropriate next steps at that point in time.
The NESO should consider engaging in the National Security and	• Bilateral sessions	• Equity investor	See commentary	We have engaged with The Department for Energy Security and Net Zero (DESNZ)

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Investment process as it is something DESNZ might be looking for.				throughout the implementation process to ensure that appropriate processes were considered in the design of the procurement process.
Consider a market signal during the pre-tender phase which indicates what the project type is. Bidders will start forming their consortia which will help with PQ timelines.	• Bilateral sessions	• Equity investor	Agree	Bidders will have foresight of projects that meet the competition criteria through network planning processes. Projects which are approved for competition will enter a pre-tender phase and signals will be made to the market through this.
Will evaluation include environmental factors?	• Bilateral sessions	• Public body	Agree	Yes, environmental factors will be considered as part of the tender assessment.
Having information from unsuccessful bidders (e.g. information bidders wouldn't' have access to) may avoid some of the challenge around a TO being the winning bidder	• Bilateral sessions	• TOs	See commentary	We are committed to conducting a fair, transparent, and open procurement process. Bidders will all have equal access to any relevant information made available as part of the procurement process.
A positive of the early competition model is the early notice of the project and what is likely to be needed. The Preferred Bidder (PB) period is quite short which means a bidder will know quickly if they are going to be successful.	• Bilateral sessions	• Equity investors	Agree	The process has s been designed to be as streamlined as process, particularly the PB stage as it is intended for the successful bidder to be able to transition to a CATO and start preliminary works as soon as possible.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
TOs would appreciate advance notice of requests for information to support early competition tender processes. The more notice given, the better.	• Bilateral sessions	• TOs	N/A	We agree that advance notice and clear planning will benefit all parties involved in an early competition process.
Ideally TOs need to know that requests will be coming 4-6 months in advance so that resources can be planned appropriately.	• Bilateral sessions	• TOs	N/A	

The pre-qualification stage (PQ)

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Will the PQ stage be electronic?	• Bilateral sessions	• TOs	See commentary	Yes. The activity will be conducted online.
Do you have to pass all parts to move to the next part?	• Bilateral sessions	• TOs	See commentary	Yes.
If bidders make an admin error, will you let bidders know?	• Bilateral sessions	• TOs	See commentary	Yes, this will be part of the clarification process.
Is there an assessment of ESG experience?	• Bilateral sessions	• TOs	See commentary	Yes, both at PQ and ITT stage.
Based on the OFTO experience, 5-6 weeks for the PQ stage seems short	• Bilateral sessions	• Equity investor	See commentary	The OFTO PQ is an enhanced type of PQ which involves both a backwards and forward-looking assessment.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
				We intend to undertake a simple PQ style assessment of backward-looking experience, and therefore consider that this should be achievable within the 6-week window proposed. We have also undertaken a detailed bottom-up analysis of the time required to complete the stage's activities.
The requirement in PQ submission stage to submit the details for construction contractors is difficult as there are no designs and no consenting done at this early stage.	• Bilateral sessions	• Equity investor	See commentary	We need to ensure that the successful bidder has the appropriate expertise and capability required to complete the project. The primary activities the successful bidder will need to undertake once awarded the project will be the development of the design and working to secure consents. We therefore consider that it is appropriate to include this requirement.
To ensure that new entrants don't struggle with demonstrating track record, ensure that capability can be presented against broader transmission projects.	• Bilateral sessions	• Equity investor	Agree	Bidders will be able to provide relevant case studies to demonstrate their experience. Different case studies may be used to demonstrate experience against different PQ assessments.
Consider the wording of the financing questions to enable bidders to submit any relevant	• Bilateral sessions	• Equity investor		

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
financing experience, not just onshore transmission.				
Is there a reason why you wouldn't consider US experience if bidders could display relevance	• Bilateral sessions	• Equity investor	See commentary	We will not place any restriction on participation in an early competition process.
Would you allow advisors experience to count towards compliance?	• Bilateral sessions	• Equity investor	See commentary	Our position to this will be set out in the PQ proposals. We have proposed that the evaluation criteria should be assessed against the applicable Qualifying Member, Parent Company or Lead Construction Contractor as specified for each question. If applicable, bidders will be asked to provide details of legal, financial, and technical advisers.
Guarantees on contractor balance sheets are too restrictive if you consider that a contractor might take on multiple projects at once.	• Bilateral sessions	• Equity investor	See commentary	We have set out a range of different securities. We believe we have introduced as much flexibility as possible, whilst still protecting consumers.

ITT stage

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Will the ITT1 stage timeline be fixed for all projects or flexible based on project size?	• Bilateral sessions	• TOs	See commentary	The original Early Competition Plan had a two stage Invitation to Tender (ITT) process. Now, our preferred option is a single ITT stage, which is anticipated to require a total of 10 months to

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
				complete, subject to any extensions made within the process. The exact timings for each stage of the process will be confirmed during the pre-tender stage for each project.
If you have to design each project on a project-by-project basis, this places significant constraint on resource. In the industry there's a lot of projects to deliver by 2030. Given these constraints, bidders may prefer to take a standardised / design that has been produced later.	• Bilateral sessions	• Equity investors	See commentary	We recognise feedback that there are constraints on resource in the industry. We consider that by giving sufficient notice of the project pipeline this should allow bidders to plan and resource appropriately to participate in the competition.
Are you considering applying different costs of capital in the Cost Benefit Analysis and commercial assessment for TOs and for competitive bidders	• Workshops	• ENTSO-E • European TSOs	See commentary	Feedback on the CBA was considered as part of the CBA methodology consultation. The response to this consultation was published in February 2024.
When selecting a preferred bidder, you should consider a business case or wider benefit not just lowest cost.	• Bilateral sessions	• TOs	See commentary	The evaluation criteria used to determine the winning bidder will consider both technical and commercial criteria to identify the best overall submission.
A 30% equity commitment is too high	• Bilateral sessions	• Equity investors	See commentary	As set out in the Early Competition Plan, we think it is important to have a significant level of commitment. The actual level of

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
				commitment will depend on the parameters set out in the specific tender.

The role of incumbent transmission owners in the procurement process

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Will the incumbent TOs be a part of the evaluation panel?	• Bilateral sessions	• TOs	See commentary	No, evaluation will be undertaken by the NESO. Incumbent TOs will not be part of the evaluation panel.
TOs requirements on Information Technology (IT) security to also be considered for bidders to abide by.	• Bilateral sessions	• TOs	See commentary	Bidders will need to comply with the security requirements set by the competition.
There should be clarity on what data will be shared with bidders and what will just be shared to NESO	• Bilateral sessions	• TOs	See commentary	The information for bidders contained in the tender pack will be provided from the NESO's tCSNP/CSNP report, which will be publicly available. Network models and any other confidential information will only be shared with bidders who have passed PQ and have signed a Non-Disclosure agreement (NDA).
There should be clarity on what scenario/model the NESO wants the pre-tender information on.	• Bilateral sessions	• TOs	See commentary	We have included details of what scenarios and years the TO should consider in the relevant template.
There should be clarity on liability of data being shared and studies done as part of ITT stages 1 and 2.	• Bilateral sessions	• TOs	See commentary	The provision of data is currently with Ofgem for decision. Liabilities will need to be considered by Ofgem.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Would like to have formal agreement on TOs obligation and process to provide data/studies	• Bilateral sessions	• TOs	See commentary	TOs will be required to collaborate with the NESO as part of the pre-tender stage. This includes providing valuable input and data on potential solutions through the Network Planning processes.
How would bidders' solutions interact with TOs data and the ETYS / network model?	• Bilateral sessions	• TOs	See commentary	Bidders will be provided with network models as well as operational detail of the interfacing sites for consideration in their bid. Bidders will need to demonstrate that their solution meets the parameters detailed within and this will form part of the NESO tender evaluation.

The preliminary works phase

Delivering preliminary works

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Ideally, the activities required in the preliminary works phase should be standardised.	• Bilateral sessions	• Technology suppliers	See commentary	To the extent possible ideally preliminary works activities would be standardised. However in practice it is unlikely that the exact same activities would be required for every project. Different locations, assets and network needs will all bring individual project-specific challenges that will need to be addressed in the preliminary works phase.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Behaviour and approach are important in the preliminary works stage. The Client should drive the right behaviours which contribute towards delivering efficiency and the right outcome.	• Bilateral sessions	• Construction contractors	Agree	We agree that bidders should be incentivised to progress through the preliminary works stage efficiently. Our proposals for the PPWCA include a gain share for any cost savings identified at this stage. We consider that this will incentivise the CATO to pursue opportunities to drive down costs where possible to retain some of the gain.
Delays are important, adding time and effort regardless of the framework used. Proper co-ordination and effort are required to manage delays, as is an appropriate sharing of risk.	• Bilateral sessions	• Construction companies	Agree	We agree that delays can have a significant impact. We will look to assess the delivery methodology of each bidder to ensure their plans are achievable. We would generally expect the CATO to manage the risk of delay, however the PPWCA may allow for adjustments to account for unforeseeable factors.

Planning and consenting

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
There are some things the NESO could do to de-risk the preliminary works phase, e.g. holding discussions with landowners.	• Bilateral sessions	• Construction contractors	Disagree	The NESO is proposing to undertake some high-level engagement with key stakeholders pre-tender, however not at the level of route options and not with local stakeholder such as landowners. This is dependent on the bidders submission and would be the

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
				responsibility of the CATO during preliminary works.
The NESO should engage with experienced parties (e.g. offshore wind developers) to determine the appropriate level of due diligence on planning and consenting.	• Bilateral sessions	• Construction contractors	See commentary	We have considered and set out the level of planning and consenting analysis we expect bidders to undertake at tender stage. Once appointed, securing planning (and conducting any necessary activities to ensure this) will be the CATO's responsibility.
The NESO should engage with local authorities pre-tender to understand the criteria at bid stage	• Bilateral sessions	• Planning and consenting expert organisations	Agree	We agree that it will be valuable for us to engage with key stakeholders before the tender to inform them of the upcoming competition.
The NESO should consider who is best placed to undertake ground investigations. It would be inefficient for multiple bidders to undertake similar investigations, but it is important that sufficient provisions are given for ground investigation.	• Bilateral sessions	• Construction companies	Agree	We expect bidders to rely on desktop studies at tender stage. Only the CATO will undertake actual investigations, removing the risk of duplication.
In addition to planning, consents and ground risks, consideration should also be given to potential impact of environmental risks	• Bilateral sessions	• Potential equity investors • Construction companies	Agree	We have included environmental criteria in the bid assessment framework. We also note that the CATO will be required to consider (and likely mitigate) environmental risks to secure planning permission.
When CATOs are performing optioneering, environmental impact	• Bilateral sessions	• Planning and consenting	Agree	

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
should be done at the same time. There is pressure from the public and the government.		expert organisations		
Consenting should not be viewed as a low-risk phase of the project. Overruns and impact on the TRS might make the project undeliverable	• Bilateral sessions	• Equity investor	Agree	We recognise that planning and consenting can be a significant activity with associated risk. The PPWCA will allow an adjustment for certain costs arising from the preliminary works phase. Projects which become undeliverable would need to be assessed on a case-by-case basis.
From an equipment manufacturer's perspective, the cost of delivering equipment could change in line with the complexity of the route, which is outside of the manufacturer's control.	• Bilateral sessions	• Technology suppliers	Agree	We agree that route changes can affect costs, however the PPWCA would occur after the preliminary works were complete. This means that adjustments could be made for unforeseeable changes which give rise to additional cost.
Ground conditions can kill a project, it's important that sufficient consideration is given to this risk. With cable routes it's all about planning, as you could "eat money" with the wrong planning considerations and ground conditions.	• Bilateral sessions	• Construction companies	Agree	We recognise that ground conditions and planning are major risks. We expect bidders to be able to anticipate and price for foreseeable risks, but will allow adjustments through the PPWCA for reasonably unforeseeable risks.
Whilst you can look at land from a surface level, and with boreholes,	• Bilateral sessions	• Technology suppliers	Agree	

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
you should be mindful of looking deeper underground. You could find issues with archaeological finds, or things which affect thermo-resistance.				
Bidders will come up with alternatives to examination and so asking for past projects and things that were picked up as key issues can input into optioneering	• Bilateral sessions	• Planning and consenting expert organisations	Agree	Bidders experience will be considered in the assessment phase.
There should be careful management of local communities - too many presented options are likely to lead to worse stakeholder engagement.	• Bilateral sessions	• Planning and consenting expert organisations	Agree	We have proposed an approach which would involve the NESO informing the relevant key stakeholders of an upcoming project rather than bidders. This will mean there is a single point of engagement and limit confusion. Once confirmed, a CATO would then engage locally as needed during preliminary works. Prior to the identification of the CATO, individual bidders are prohibited from any public engagement.
Resource capacity constraints within statutory bodies may make multiple consultations in the same area difficult	• Bilateral sessions	• Planning and consenting expert organisations • Public bodies	Agree	
It is better to adopt a principle of openness from the outset with local communities.	• Bilateral sessions	• Planning and consenting expert organisations	Agree	We agree and intend to make key stakeholders aware of upcoming projects from early in the process.
There are government requirements for biodiversity Net	• Bilateral sessions	• Planning and consenting	See commentary	We expect all bidders to abide by any legal requirements during design, planning,

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Gain from November 2023. How has this been factored in?		expert organisations		construction, and operation of the assets. There may be specific targets relating to biodiversity however this is dependent on the requirements of the licence to be developed by Ofgem.

Debt competition

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
It is important to consider how bidders can demonstrate value add in the debt competition	• Bilateral sessions	• Equity investor	Agree	Demonstrating finance raising capability will be assessed in the PQ and ITT stages.
As debt investors would expect to be involved fairly late in the process but care needs to be taken to ensure a bankable structure, particularly with regard to the construction risk.	• Bilateral sessions	• Debt investors	Agree	We would expect the involvement of equity in the tender process to bring a focus on making the project financeable.
Margins of debt assumptions look thin given construction risk, long drawdown, long tenure, and new sector.	• Bilateral sessions	• Debt investor	N/A	The indicative term sheet is only for the comparison of bids. It will be updated in the pre-tender stage to reflect market conditions. Actual terms will be set in the debt funding competition.
Consider that the letter of support from debt providers might not	• Bilateral sessions	• Debt investor	Agree	We acknowledge that lenders will not make commitments at the ITT stage given the time to

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
serve as good indicators If the process is too far in advance.				Financial Close. However, we think there is value in asking bidders to engage with banks, even at a high level.
Long term lending from banks is less and less common due to liquidity constraints - consider that banks may want to come in with flexible investment for construction and then reverse to the bond market	• Bilateral sessions	• Debt investor	N/A	Alternative financing structures, available at the time, would be considered in preparing for the debt funding competition.
The indicative term sheet should evolve over time due to liquidity constraints. Lack of flexibility in the OFTO regime has damaged sector investment.	• Bilateral sessions	• Debt investor	Agree	The indicative term sheet will be reviewed ahead of each tender.

Delivery and operations

Network operation and availability

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
Who has the obligation to monitor the network and availability and costs associated with it? TO's cannot be reasonably expected to	• Bilateral sessions	• TOs	See commentary	Availability monitoring will be undertaken by the CATO and overseen by the NESO.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
incur cost associated with CATO availability monitoring				
At what point do CATOs take on connection obligations? Conscious of timing and the long duration of the programme and multiple applications in a geographical area.	• Bilateral sessions	• TOs	See commentary	A CATO will be required to consider additional works (including connections) from the time it is awarded a licence. During preliminary works and construction, each piece of additional works (including connection applications) should be considered on a case-by-case basis. If it is considered that the request would lead to a delay in commissioning, then it must justify the timetable to the contract/licence counterparty. If the contract/licence counterparty disagrees with the CATO's assessment, then they can obligate the CATO to undertake the works. The CATO will be able to dispute this decision through the standard dispute mechanism available to it.
Service levels should be higher for CATOs as they currently equate to extra work and costs for TOs. OFTOs example is not quite accurate as OFTOs are ringfenced, whereas CATOs are integrated and need to be de-risked away from the TO	• Bilateral sessions	• TOs	See commentary	This is up to Ofgem to decide a position.

Stakeholder feedback	Forum / Event	Feedback from	NESO position	Commentary
For operational availability, would appropriate excusing factors be considered?	• Bilateral sessions	• Equity investor	See commentary	The availability measures and the methods of calculation are detailed in the proposed commercial model.
Regarding operational availability, examples beyond 'straight availability' could be considered, as the SPV will be looking to pass these obligations to contractors.	• Bilateral sessions	• Equity investor	See commentary	There will be a licence obligation to provide the network need at the availability stated. Penalties will be applied for not meeting the availability set.
Where additional works are being done to allow new connections, it needs to be clear that any impact on availability incentive sits outside this incentive.	• Bilateral sessions	• Equity investors	Agree	The details of the availability mechanism for each project will need to be developed specific to the asset in question. This will include consideration of the impact of any new connections on the existing asset's availability.
The tracking of asset health for TOs is captured by the Network Output Measures Health & Risk Reporting Methodology (NOMs) – how will this apply to early competition?	• Bilateral sessions	• Transmission asset owners	See commentary	The methodology used can be applied to both CATOs and TOs.
For the 98% availability, is there a specific formula of how you calculate a certain power line?	• Bilateral sessions	• European TO	See commentary	Yes, we use a calculation on availability. This is detailed in the ECI Update.

Codes

To implement early competition a programme of code changes has been progressed. This includes the Grid Code (GC), Charging and Use of System Code (CUSC), System Transmission Operator Code (STC) and the Security & Quality of Supply Standard (SQSS). The

proposed modifications introduce the concept of a Competitively Appointed Transmission Owner (CATO) to the respective codes to enable onshore network competition for the design, build and ownership of onshore transmission assets.

The proposed modifications have been developed in consultation with the respective work groups that evaluate and administer code modifications. Most modifications have completed the Work Group, Consultation and Panel review stages and are with the Authority for a decision. Therefore, proposals and feedback specific to the code changes are not discussed in this document but information can be found on the Connection part of our website.[8]

[8] Connections | National Energy System Operator

Abbreviations

Abbreviations	Definition
AC	Alternating Current
BEAMA	A trade association for energy infrastructure companies in the UK. Formerly the British Electrotechnical and Allied Manufacturers' Association
CATO	Competitively Appointed Transmission Owner
CBA	Cost Benefit Analysis
CPI-H	Consumer Prices Index including owner occupier' housing costs
CSAT	Customer Satisfaction
CSNP	Centralised Strategic Network Plan
DESNZ	Department for Energy Security and Net Zero
DPC	Direct Procurement for Customers
EC-I	Early Competition implementation
ECP	Early Competition Plan
EISD	Earliest-in-Service-Date
ENTSO-E	European Network of Transmission System Operators for Electricity
ETYS	Electricity Ten Year Statement
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IT	Information Technology
ITT	Invitation to Tender (a stage in the early competition process)
NDA	Non-Disclosure Agreement
NESO	National Energy System Operator
NETS	National Electricity Transmission System
NOA	Network Options Assessment
NOMs	Network Output Measures Health & Risk Reporting Methodology
NSP	Network Services Procurement
OFTO	Offshore Transmission Owner
PB	Preferred Bidder
PFI	Private Finance Initiative
PPP	Public Private Partnership
PPWCA	Post-preliminary works cost assessment
PQ	Pre-qualification
RIIO	Revenue = Incentives + Innovation + Outputs. The performance-based model used by Ofgem to set price controls for the Great Britain energy networks.

Abbreviations	Definition
SPV	Special Purpose Vehicle
SQSS	Security and Quality of Supply Standard
STC	System Operator Transmission Code
tCSNP2	Transitional Centralised Strategic Network Plan 2 – published as Beyond 2030 report, March 2024.
TO	Transmission Owner
TSO	Transmission System Operators
VfM	Value for money