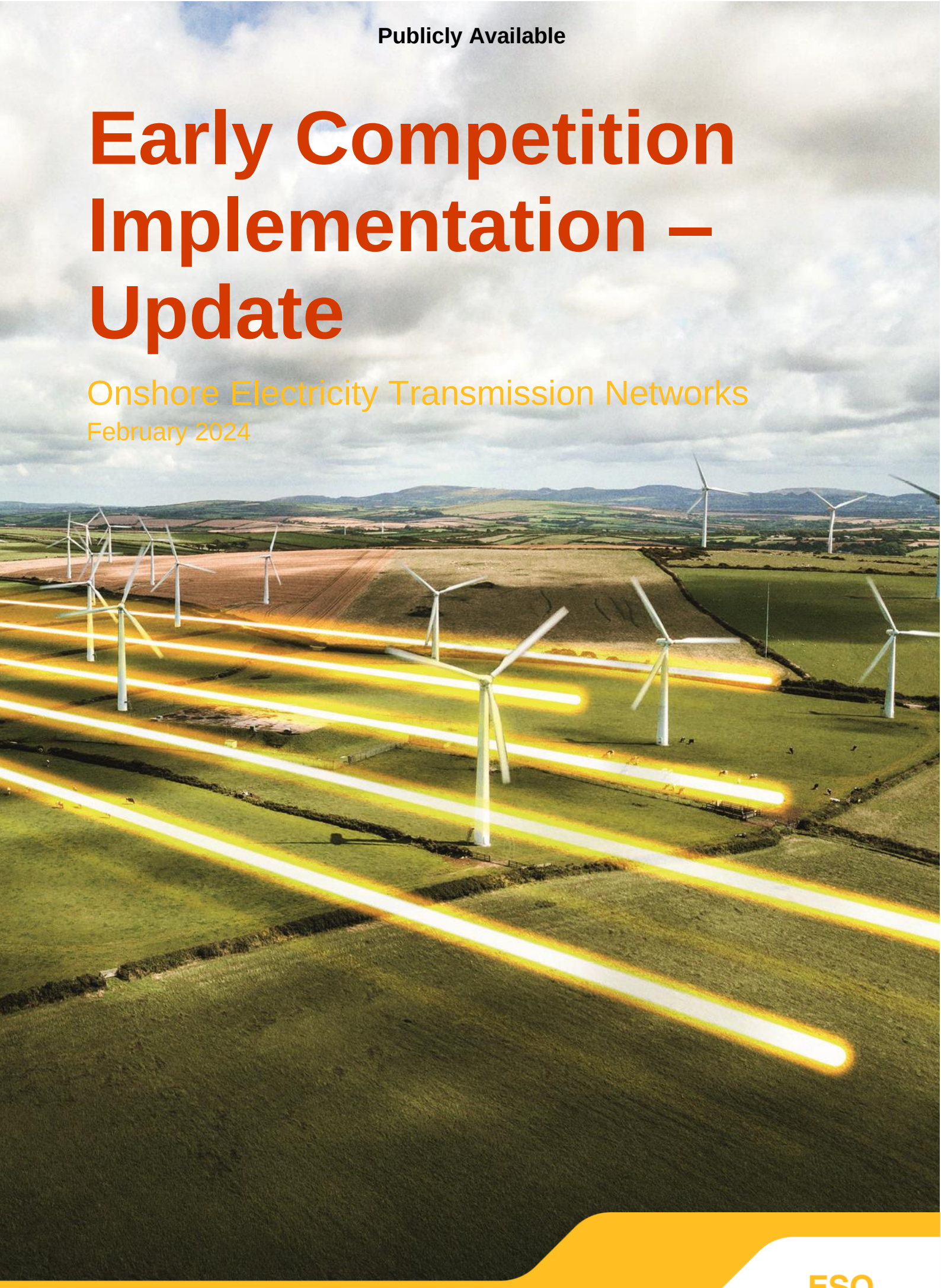
Publicly Available

Early Competition Implementation – Update

Onshore Electricity Transmission Networks

February 2024



ESO

1 Executive summary

The government has announced that the first eligible projects for competition should be identified in Summer 2024 with the launch of the competition in the same year. The ESO is working closely with Ofgem to establish the frameworks and processes to make this happen. Following publication of the Early Competition Plan (ECP) in April 2021, the ESO has been further developing the concepts set out in that document. This document, the Early Competition Implementation Update ("EC-I Update"), sets out where we have further developed or changed positions from the ECP.

Furthermore, key elements of legislation and policy have evolved during this period. The ESO has therefore reflected on the implications of these for competition. Most notably, in summer 2023[1], Ofgem published a consultation and the subsequent decision document on the Centralised Strategic Network Plan ("CSNP") which proposes a new methodology for planning the energy system. There are several impacts of the CSNP proposals for early competition including the level of design work done as part of the network planning process, the technical specification of projects for early competition and the assessment of network vs. non-network solutions. This is covered in detail in section 2.1.

Throughout the development of the positions set out in the EC-I Update, we have engaged with a range of market and industry stakeholders to obtain feedback on key elements of the early competition model. This feedback is reflected throughout this document. The ESO was supported in the development of the proposals in this document by KPMG.

Background

The ECP set out the model for competition developed with extensive stakeholder engagement, including two consultations and independent challenge from the ESO Networks Stakeholder Group ("ENSG"). It described the background and approach to the identification of projects for early competition, the commercial model, the end-to-end process (including the tender and post-tender award processes), roles and responsibilities, implementation and enduring costs, remuneration and incentives.

In August 2021 Ofgem launched a consultation on their views on early competition, including a draft impact assessment on developing arrangements to deliver competition. In March 2022, Ofgem published their decision to proceed with the implementation of an early competition model and stated that the ESO was a suitable party to become the procurement body.

This decision coincided with the development of the Energy Act 2023[2] (Energy Act) which sets out the legislative framework which enables early competition and facilitates the award of competitively awarded transmission licences.[3] The Energy Act also sets out the legislative framework which will enable the ESO to become a fully independent system operator, the National Energy System Operator (NESO).[4]

Early Competition Implementation Update Summary

The structure of the document is as follows:

- **Section 2 – policy changes**
- **Section 3 – project identification**
- **Section 4 – commercial model**
- **Section 5 – end-to-end process**
- **Section 6 – cost recovery**

[1] https://www.ofgem.gov.uk/publications/centralised-strategic-network-plan-consultation-framework-identifying-and-assessing-transmission-investment-options

[2] Previously known as the Energy Security Bill, having received Royal Assent and passed through parliament on 26th October 2023

[3] In parallel to the development of the implementation phase of early competition, the ESO and Ofgem have also been considering changes to the network planning process. Moving away from the Network Options Assessment (NOA) to the Centralised Strategic Network Plan (CSNP).

[4] This will give the ESO additional responsibilities as an expert, impartial body with an important duty to facilitate net zero whilst also maintaining a resilient and affordable system. https://www.nationalgrideso.com/news/eso-announces-name-forthcoming-future-system-operator

This EC-I Update sets out updates and additional detail on many elements of the early competition model. It reflects changes in the approach to network planning (through the CSNP), evolution of the commercial model and a refined tender process.

Policy changes (Section 2) – the key changes or updates to the ECP are:

- ***Network Planning processes –*** sets out implications of the move to a CSNP implications for the overall early competition model.
- ***Legislation –*** sets out changes in procurement and energy legislation since the development of the ECP.
- ***National Energy System Operation (NESO) –*** set out the move to an independent electricity system operator.

Identifying projects for early competition (Section 3) – the key changes or updates to the ECP are:

- ***Criteria for competition –*** refinement of the criteria which will be used to identify projects suitable for competition following Ofgem's decision on the early competition framework and the criteria for competition[5]. This document also considers how the criteria for competition would be applied for connections projects.
- ***Cost benefit analysis ("CBA") methodology –*** a detailed view of the CBA methodology which uses qualitative and quantitative analysis is set out. Changes to the CBA are based on market feedback to the ESO consultation in 2022.[6]
- ***The project identification process –*** this document sets out changes to reflect the upcoming publication of the transitional Centralised Strategic Network Plan 2 ("tCSNP") and CSNP as the enduring source of potential projects. The CSNP will build on and replace the Network Options Assessment ("NOA").[7]
- ***Non-network solutions –*** based on the CSNP proposals this should be considered as part of the network planning processes and procured through processes such as the ESO's Network Services Procurement ("NSP") rather than early competition.

Commercial model (Section 4) – the key changes or updates to the ECP are:

- ***Competition and bidder legal structure –*** having evaluated the impact of several key factors relevant to the requirement to run a debt competition, we set out a series of tests that any legal structure proposed by a bidder must meet to ensure a fair and equitable competitive process.
- ***Preliminary works payments –*** the ECP recommended that preliminary works payments should be considered for a tender where it encourages market participation. This document further recommends that, should the Procurement Body confirm the need for preliminary works payments, a maximum cap is set for all bidders based on estimated preliminary works costs associated with the indicative design.
- ***Post Preliminary Works Cost Assessment ("PPWCA") –*** this document provides further detail on the PPWCA process, including an automatic adjustment to underlying costs for inflation based on pre-agreed indices, additional details on what would be seen as 'reasonably foreseeable', and sets out a basis for determining the cap for the PPWCA upwards adjustments.
- ***Revenue period –*** an alternative basis (from that set out in the ECP) for setting the length of the revenue period is proposed, revisiting the appropriate options for the end of the revenue period, and developing a preferred position on 'revenue stacking'.
- ***Asset transfer –*** this document sets out how the change to the revenue period will work in relation to legal powers to enable asset transfer and potential lump sum payments following a termination. This position has also been updated to better facilitate the potential for assets to continue to be used (with refurbishment) beyond their initial useful life.

[5] https://www.ofgem.gov.uk/publications/decision-early-competition-onshore-electricity-transmission-networks
[6] Cost Benefit Analysis Consultation
[7] Decision on the framework for the Future System Operator's Centralised Strategic Network Plan (ofgem.gov.uk)

- ***Payment mechanism –*** this document describes the operation of the availability mechanism, building on the principles of the revenue model set out in the ECP (a Tender Revenue Stream ("TRS") subject to an availability incentive). This includes the approach to measuring availability, service reduction adjustments, first and last period adjustments and seasonality adjustments. These updates all reflect the adaptation of the model proposed to the specific nature of onshore transmission assets.
- ***Additional works –*** positions on the design-adjustment process (pre-commissioning and post construction) and new investment pricing and financing are presented, setting out additional detail on how the CATO's obligation to undertake additional works will be managed at different levels of investment.
- ***Code obligations –*** to support the implementation of the early competition model, the EC-I Update details code changes necessary to enable early competition. These have also been presented to code panels. These modifications facilitate competition winners to provide network transmission in a coordinated and safe manner and allocate appropriate party obligations and rights within code groups.

Tender process (Section 5) – the key changes or updates to the ECP are:

- ***Summary of the project timeline –*** expanding on the ECP's high-level timings we present a bottom-up breakdown of timings required to undertake all identified activities under each stage for the initial early competition tender.
- ***Pre-tender activities –*** building upon the ECP's considerations on the pre-tender activities, we have described the steps and information required to launch an early competition tender process.
- ***Tender activities –*** reviewing the ECP's tender structure into a single Invitation to Tender ("ITT") stage and expanding on guiding principles for each tender stage, we propose further details on the evaluation criteria and scoring approach for Pre-Qualification ("PQ") and ITT to select the Preferred Bidder.
- ***Post tender award process –*** we further outline our proposals in relation to the PPWCA process and governance to fix the TRS payment amounts.
- ***Planning and consenting –*** drawing on the ECP's recommendation, we further examine potential activities to be undertaken during pre-tender, tender and post-tender stages by the Procurement Body and bidders in relation to planning and consenting process.
- ***Commissioning and compliance –*** we discuss the need for Competitively Appointed Transmission Owners ("CATO") and Transmission Owners (TOs) to collaboratively develop an interface design that is best value for consumers while safeguarding consumers from undue costs.

Cost recovery (Section 6) – the key changes or updates to the ECP are:

- ***Cost recovery –*** We also consider cost recovery options for the ESO and recommend that an annual pass-through payment is likely to be best value for consumers in relation to the Procurement Body role (Section 4). This will however need to be reviewed once the corporate model and regulatory framework for ESO is determined.

2 Policy developments

In the RIIO-2 Sector Specific Methodology Decision Document[8] published May 2019, Ofgem requested that the ESO develop a plan for early competition for onshore transmission. The resulting Early Competition Plan ("ECP")[9] was published in April 2021.

Since publication there have been several policy developments that impact its content, including:

- **The Energy Act –** The Government brought forward the Energy Bill to address energy production, security, and regulation within the energy market and enabling provisions for competition. The Energy Bill included legislation to establish an independent system operator (ISOP) and a transfer scheme to ensure that existing capabilities and functions of the ESO are transferred to the new ISOP, designated as NESO. The Government also consulted on the this. The Energy Act 2023 received Royal Assent in October 2023[10].
- **Future Systems and Network Regulation ("FSNR") and Centralised Strategic Network Plan ("CSNP") –** Ofgem consulted on the frameworks for future systems and network regulation, which considered potential developments to the existing RIIO price control framework, and consulted on the Centralised Strategic Network Plan, which sets out how the ESO will identify and assess transmission investment options.
- **Accelerated Strategic Transmission Investment ("ASTI") –** In December 2022, Ofgem introduced the ASTI[11] regulatory framework which assesses, funds and incentivises accelerated delivery of the large, strategic onshore transmission projects, to meet the government's offshore wind ambitions by 2030.
- **Electricity Networks Commissioner –** In June 2023, the Electricity Networks Commissioner, Nick Winser, published an independent report[12] on reducing development time for transmission infrastructure.
- **Transmission Acceleration Action Plan –** In November 2023, the government published its response to the report from the Electricity Networks Commissioner. Recommendation CT1[13] set out that onshore network contestability should be delivered in phases with Ofgem identifying the first eligible projects for competition in Summer 2024, announcing the launch of a competition process as soon as possible later in the same year once the competition model has been sufficiently developed.

The impact of these policy developments on the early competition arrangements as set out in the ECP is described in section 2.2.

2.1 Changes in network planning

The ESO's network planning processes are evolving with the ESO becoming the central whole-system planner for the energy system, at both national and regional levels. In December 2023, Ofgem published their decision on the framework for a Centralised Strategic Network Plan (CSNP)[14]. The aim of the CSNP is to provide an independent, coordinated, and longer-term approach to wider transmission network planning in GB to help meet the government's net zero ambitions.

As a result of the move to the CSNP, the inputs into, and the outputs of the ESO's network planning process will also evolve. In particular, the CSNP will look to consider alternatives to network build as part of assessing the most appropriate solution. The CSNP process is intended to broaden the areas the ESO considers when planning the network.

In particular:

- **Spatial characteristics** including identifying possible broad route study areas.

[8] https://www.ofgem.gov.uk/publications/riio-2-sector-specific-methodology-decision
[9] https://www.nationalgrideso.com/document/191251/download
[10] https://www.legislation.gov.uk/ukpga/2023/52/contents/enacted
[11] https://www.ofgem.gov.uk/publications/decision-modify-special-licence-conditions-electricity-transmission-licences-accelerated-strategic-transmission-investment
[12] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1175647/electricity-networks-commissioner-companion-report.pdf
[13] Transmission Acceleration Action Plan
[14] Decision on the framework for the Future System Operator's Centralised Strategic Network Plan | Ofgem

- **Site locations** considering environmental and community impacts including the undertaking of Strategic Environmental Assessments.

The outcome of this work will result in options being assessed with the consideration of environmental and community impacts within the network planning process, leading to broad route study areas that would be considered as capable of being consented. Importantly, this will allow the solutions identified through CSNP to be endorsed as statements of the projects required for nationally significant infrastructure, subject to the implementation of the Government's transmission acceleration action plan.

2.2 Changes to the ECP position

The move to the CSNP has led us to recommend two notable modifications to the ECP model:

a) The competition should build on the optioneering carried out in the CSNP rather than redo it. This means that:

   i. The technical specification should be aligned to the indicative solution identified in the CSNP.

   ii. The options for location of the connection points should be defined.

   iii. Spatial constraints including environmental and social impact constraints should be provided as part of the technical requirements specification; and

b) Non-network solutions should be considered as part of the network planning processes. Where non-network solutions are identified as the best option, they can be more effectively procured through processes such as the ESO's Network Services Procurement (NSP) rather than early competition.

We believe that these recommendations are appropriate at this point in time based on the factors set out below. However, this should be kept under review as alternative technologies develop in future, network planning processes evolve, and learnings emerge from different tender processes.

The remainder of the EC-I Update is written on the basis that these recommendations are taken forward.

Recommendation

Competition should build on the optioneering undertaken in the CSNP.

Non-network solutions should be considered as part of the network planning processes and procured through Network Services Procurement.

2.2.1 Aligning the technical specification to the indicative solutions

The approach set out in the ECP was to compete a network need (e.g. X GW boundary uplift across Y boundary with potentially some geographic limitations depending on the need). Due to the recent changes to network planning, we recommend that the competition should recognise and support the optioneering carried out in the CSNP, meaning that the technical specification should be aligned to the indicative solution identified in the CSNP. This would include a more explicit requirement as identified in the CSNP (e.g. a new X GW circuit between substation A and substation B and geographically confined within a wide study area). The conceptual comparison of this model with the original is shown in Table 1 and Figure 1 below.

ECP early competition model	Amended early competition model
Non-network and network solutions considered	Network solution only. Non-network options considered in CSNP process and procured through alternative processes such as Network Services Procurement (NSP).
Technology agnostic	Solution type known (i.e. new circuit)
Connection points determined by bidder	Connection points identified through CSNP
Route corridors determined by bidder	Wide study area determined by CSNP. Bidder does further design and narrows study area.

Table 1: Key differences between ECP and EC-I Update due to CSNP.

The proposed amended model is still considered a form of early competition. All bidders would still need to identify an appropriate detailed solution, within the broad boundaries identified for the indicative solution, and the winning bidder would still need to do the detailed design work and detailed planning and consenting work during the preliminary works phase.

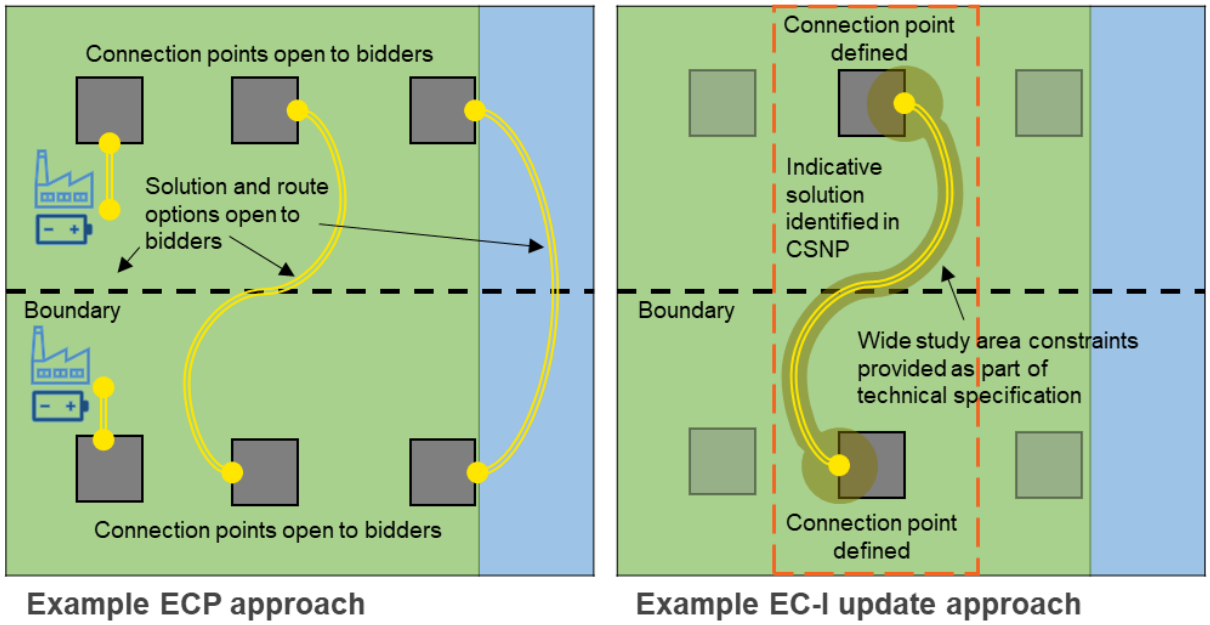


Figure 1: Example technical need to be tendered under ECP compared to the EC-I Update

2.2.2 Rationale for the proposed changes

In reaching the recommendations above we considered the following factors:

- How different solution types can be considered within network planning,
- Recognising the optioneering work in the CSNP,
- Reducing the risk of obtaining planning consent,

- Non-network solutions ability to compete with network solutions,
- The benefits of competing a project early in the project lifecycle.

These are considered in more detail below.

How different solution types can be considered within network planning

To ensure we are able to initiate appropriately tailored tenders, whether through the early competition route or Network Service Procurement, we need to ensure network planning processes identify which solution type is likely to offer the best value to consumers.

The current Interested Persons ("IP") process under NOA invited parties other than incumbent TOs to provide options into the NOA. As part of developing CSNP methodology, we will engage with stakeholders to build on the learnings from the IP process to consider a wide range of third party solutions during network planning. Based on feedback we are considering five options under the CSNP process:

- Broader sharing of network data and models
- Financial incentives for third-party submissions
- Early access to draft commercial terms
- System need communicated in a technology agnostic manner
- Conflict of interest mitigation

It is expected that several of the submissions into the network planning process may not be sufficiently mature in their design or technology readiness level. To assist in the development of these types of options, the ESO will seek to develop partnerships with organisations such as the non-departmental public body UK Research and Innovation (UKRI), academia, and incumbent TOs to develop emerging technologies and proposals. Further work will be needed to develop our thinking in this area, but the ESO is clear that it is essential that innovative solutions are encouraged and properly assessed alongside traditional network solutions.

Recognising the optioneering work in the CSNP

The ECP model would effectively have each bidder duplicate the optioneering work and consideration of environmental and social factors undertaken in the options process envisaged under CSNP. The ECP model would tender a network need, rather than a particular solution, and leave the development of options, including network vs. non-network options, alternative connection points, and route options, open to bidders. Many of these options may have already been discounted in the CSNP process. By aligning bidder's solutions to that of the indicative solution selected through the CSNP, greater certainty can be given earlier in the process to multiple stakeholders as they develop their own investments, wider works, and user connections.

Reducing the risk of obtaining planning consent

The final cost of the successful solution, and therefore the final TRS, is likely to be inherently uncertain at the tender stage as the bidders will not have started any consenting or detailed design. Consenting will be undertaken as part of preliminary works. The extent of the uncertainty has the potential to lead to material changes post-award, which in some cases could require the bidder to reconsider siting or approach (e.g. overground vs. underground).

The CSNP process is intended to broaden the areas the ESO considers when planning the network. The CSNP will specify a minimum level of concept design for options. The result of this is that all options taken forward will be in a more defined state than they may have been under previous NOAs, including greater detail on the environmental and community constraints in a particular study area. The outcome of this work we anticipate will lead to broad route study areas at strategic options study level, that would be considered as capable of being consented for network solutions.

The benefit of these additional considerations will mean that different routing factors will have been considered as part of determining the optimal option recommended by the CSNP. Linked to this the Department for Energy Security and Net Zero ("DESNZ") intend to recommend that the National Policy Statements ("NPS") and National Policy Framework ("NPF") should refer to and allow Ministers to endorse the CSNP as statements of the projects required for nationally significant infrastructure. This will reduce the risk of projects being able to obtain planning consent.

Non-network solutions ability to compete with network solutions

Non-network solutions have an important role in meeting transmission needs. Based on currently available non-network solutions, these are likely to be most effective in specific circumstances, such as short- to medium-term needs. Non-network solution providers are better suited to tenders tailored to particular solution types. The ESO's Network Services Procurement (previously known as Pathfinders) provides a suitable framework for the ESO to do this. These procurement events have already successfully demonstrated the ability to find alternative solutions to network needs. For example, the Stability Phase 2 tender led to a world first with contracts with five grid forming batteries rather than the more traditional stability solutions of synchronous generators. The grid forming technology builds on the flexibility of battery assets to participate in different markets while delivering clean energy solutions to the network.

An additional advantage for the procurement of non-network solutions through the Network Services Procurement route is the shorter tender timelines. Typically, a tender is completed within two years of the need being identified and communicated to industry.

The benefits of competing a project early in the project lifecycle

There are benefits to launching a tender 'early' in the project development lifecycle. One is that it provides end-to-end accountability for the successful bidder. We believe our revised proposal retains this benefit because the successful bidder still has accountability for the majority of the development of the project.

Another benefit of tendering early is that it enables innovative thinking in how the solutions are designed, constructed, and operated. By providing a high-level solution design that the bidders must work within, some scope for innovation may be reduced compared to the ECP model. However, within the study area identified through the CSNP, the bidder will still need to select the exact route and develop innovative solutions to overcome potential challenges. Different bidders may propose different routes and solutions within this. Similarly, if the CSNP identifies that the appropriate need is for a network solution, even where the technology developed by the bidder is the same, the underlying details may significantly vary. For example, the types and numbers of towers needed, and the type of foundations and conductor (type and length etc). There is still therefore opportunity for new innovative materials and construction techniques which could drive value to the consumer and help ensure timely delivery of key infrastructure.

2.2.3 Transitional arrangements

The EC-I Update is written on the basis of the enduring CSNP process which is currently being developed. The tCSNP is unlikely to have all the features and steps of the final form of the CSNP. For projects identified for competition through the tCSNP we may need to include some interim approaches to enable early competition to work effectively. We will update stakeholders as this work progresses.

2.2.4 Stakeholder feedback

The adaptations of the early competition model to fit the CSNP and the recommendations set out above were communicated to stakeholders in our webinar in December 2023. We invited comment from stakeholders and no concerns with the proposals were raised. Ofgem intend to publish a consultation shortly to seek stakeholder views on the recommendations we have set out here.

We would also welcome any feedback stakeholders should wish to provide directly to us, including any questions or concerns regarding how we intend to procure non-network solutions.

- To get in touch with the early competition team, please email us at box.earlycompetition@nationalgrideso.com
- Information on Network Services Procurement is also available on our website.[15]

2.3 Changes in legislation and regulation

In the ECP we acknowledged the need for legislative changes to introduce competition in onshore transmission.[16] We recommended that primary legislation would be needed for early competition to address onshore transmission network needs, whilst secondary legislation was likely required to set out matters such as the early competition criteria. The anticipated timeframe for these legislative changes would result in a competition starting between 2024 and 2025, with the preferred bidder being announced 2026-2027.[17]

The ECP also made several recommendations in respect of the applicability of existing legislation to the proposed early competition model:

- The Utilities Contract Regulations 2016 ("UCR") are the current default legislative arrangements for procurement in the utilities sector. However, several key elements of the ECP model were considered incompatible with the UCR,[18] including the potential for network and non-network solutions to directly compete against each other, and the possibility of material change to scope and/or costs post contract or licence award. The ECP recommended that new bespoke early competition tender regulations would be required, with the underlying process drawing on the key principles of UCR such as fairness and transparency.
- An exemption to relevant provisions of the Housing Grants, Construction and Regeneration Act 1996 (the "Construction Act") may be required, given early competition contracts will govern the design, construction and technical assessment of projects and may be considered "construction contracts". The main area of incompatibility was identified as the payment mechanism, which anticipates payment once construction is complete (as compared to payment by instalment as provided for in the Construction Act).

The ECP recommendations were based on the legislative position as existed in April 2021.

2.3.1 Recent developments

During the implementation phase there have been several material legislative developments. We have considered each of these, tested our previous ECP recommendations against them and further evolved our thinking, working closely alongside DESNZ and Ofgem.

In July 2022 the Energy Bill was laid before Parliament and as mentioned above, the Energy Act received Royal Assent in October 2023. The Energy Act contains the enabling powers required to:

- Run early competitions and other forms of competition;
- Make the award of relevant licences and contracts, as well as powers to make criteria regulations, designation regulations and tender regulations in respect of such competitive processes; and
- Appoint a Delivery Body, referred to in the ECP as the Procurement Body.

In August 2022, DESNZ published a policy statement and drafts of the criteria regulations and designation regulations. We reviewed and provided feedback on the draft regulations. We continue to liaise with DESNZ and Ofgem to ensure that the secondary legislation supports the delivery of early competition.

In May 2022, the Government also published the Procurement Bill, which received Royal Assent in October 2023 and became the "Procurement Act". This legislation reforms the current procurement regime following the United Kingdom of Great Britain and Northern Ireland ("UK") exit from the European Union ("EU"). The reforms will replace the Public Contracts Regulations 2015 and the UCR.

[15] https://www.nationalgrideso.com/industry-information/balancing-services/pathfinders
[16] ECP, Section 1, p3.
[17] ECP, Section 3.4.5, p26.
[18] ECP, Section 2.1.3, p11.

We have set out below our further developed thinking and proposed updates to the ECP position given the legislative developments set out above. We have also stated any key assumptions made at this stage for the purpose of further developing or changing the ECP position.

2.3.2 Development of the ECP position

It remains the intention that most of the cost for any transmission projects delivered under early competition arrangements would be recovered by the Successful Bidder through the TRS which commences upon commissioning, once construction is complete. As mentioned above, the Construction Act provides for payment by instalment. We are supporting Ofgem and DESNZ in considering the extent to which an exemption from the Construction Act may be needed.

2.3.3 Changes to the ECP position

Legislative Framework for the Procurement Process

The ECP expected several key elements of early competition to be incompatible with the UCR. The new Procurement Act and future tender regulations had not been drafted at the time of publication of the ECP. The Energy Act specifically contemplates (under Schedule 15) the introduction of tender regulations for onshore transmission competitions. These regulations will set out the framework for the procurement of onshore transmission projects. We are supporting Ofgem with the analysis of the interaction between the Procurement Act and the tender regulations. The regulations are currently being drafted by Ofgem who will consult on these regulations in due course. The UCR will be repealed when the provisions of the Procurement Act (and tender regulations) come into force. Under either regime some elements of early competition we consider will continue to be incompatible.

The Energy Act therefore specifically contemplates (under Schedule 15) the introduction of tender regulations for onshore transmission competitions. These regulations (which will have regard to the provisions of the Procurement Act) will set out the framework for the procurement of onshore transmission projects. The regulations are currently being drafted by Ofgem and will govern the tender process for early competition. Ofgem will consult on these regulations in due course.

The ESO understands that Ofgem anticipates the tender regulations will cover *inter alia* the relationship between Ofgem and the ESO as regards roles and responsibilities. Whilst the roles of the ESO and Ofgem were contemplated in the ECP, it is noted that these may differ under the new legislation.

2.4 Transition to the NESO

The ESO is working with DESNZ and Ofgem to deliver a new independent NESO. The new NESO will be expert and impartial, and will:

- have a duty to facilitate net zero while maintaining security of supply, and an efficient, coordinated, and economical system;
- take on all the main existing ESO roles and the longer-term elements of the Gas System Operator (“GSO”), enabling more coordinated, strategic, and whole systems planning;
- be a public corporation, inside the public sector, but with operational independence from government;
- be funded by consumers through price control arrangements regulated by Ofgem, but with the operational freedom to manage and organise itself to effectively deliver its roles and objectives;
- have a duty to provide advice on request to Government and Ofgem to inform key policy decisions; and
- take an increasingly significant role in shaping the energy system, including driving competition across the energy sector.

One of these new and enhanced roles will be *Driving Competition in Energy Networks*. This role will identify projects which are suitable for early competition, develop appropriate commercial models and run tenders to appoint the preferred bidder to deliver these projects. The independence of the NESO

should give bidders greater confidence that the tenders will be run competitively and that TOs will not have any unfair advantage.

It is anticipated that the licence for the NESO will introduce the necessary new Procurement Body role and set out the powers and responsibilities to undertake these tenders. These arrangements would cover areas such as how the costs of the Procurement Body are to be funded and the activities it is allowed to undertake.

3 Identifying projects for early competition

The ECP set out a process and criteria for how projects should be selected for early competition. As part of the implementation stage these criteria have been further developed. This section provides an update on this.

As set out earlier, network planning processes are evolving to become the CSNP in 2026. The changes in network planning captured in section 2.1 above, outline the developing CSNP process which will form the basis for identifying the network requirements.

Ahead of the CSNP, transitional arrangements are in place through the tCSNP which will be published shortly. The tCSNP process is broadly similar to the previous NOA process. The tCSNP process identifies network requirements and recommends major network reinforcement projects. TOs and other interested persons identify potential options to address network needs, such as improving or uprating the existing assets or building new transmission assets. The ESO then takes all these options and analyses which combination of options best addresses the needs of the network and gives signals accordingly. The signals within the tCSNP are:

- **Proceed – Critical**: This option is critical to our future network planning. Investment should be made in the next financial year to ensure the option's Earliest In Service Date ("EISD") remains on course.
- **Proceed – Maintain:** This option is important and recommended soon after its EISD. Investment can be made in the next financial year to maintain project momentum and ensure its EISD is delayed by no longer than one year.
- **Hold:** This option is important and recommended for the future, however it is not based on the EISD submitted as part of the network planing process. Therefore, the delivery date of this option can be delayed by at least one year and the option can be reviewed in the next CSNP cycle.
- **Stop:** This option is not currently recommended within the optimal path of any scenario; delivery should be stopped and not be continued.
- **Do not start:** This option is not currently recommended within the optimal path of any scenario; delivery work should not begin

3.1 The ECP position

In the ECP, we stated that potential projects should be identified based on criteria of new, separable and certain; and subject to a cost benefit analysis of expected achievable consumer value. The ESO recommended that, to provide sufficient certainty that the network need would not disappear, projects should be required in at least two FES scenarios. Ofgem consulted on these criteria and published their decision, confirming the ESO's recommendations while noting that further work was required in a number of areas[19]. The ESO has subsequently considered Ofgem's decision and developed the criteria further.

The ECP also set out that there are various drivers through which projects might arise for competition, which were the network planning processes (i.e. NOA/CSNP process), connection drive project, asset replacement, voltage and stability needs and compliance driven needs.

3.2 Eligibility Criteria for early competition

We continue to propose that projects should be identified for early competition based on a consumer benefit cost-benefit analysis and whether they are new, separate, and certain. Any definitions on the criteria may require amendments following updates from DESNZ on The Electricity (Criteria for Relevant Electricity Projects) (Transmission) Regulations[20] and associated Policy Statements. Details of these criteria are covered below:

[19] Decision on early competition in onshore electricity transmission networks, Ofgem
[20] Indicative draft statutory instrument - onshore competition criteria regulation (publishing.service.gov.uk)

New – A completely new transmission asset or a complete replacement of an existing transmission asset. This definition has not materially changed from the ECP.

Separable – The definition of separable has not materially changed from the ECP.

- The boundaries of ownership between these assets and other (existing) assets can be clearly delineated.
- Transmission assets do not need to be electrically contiguous or electrically separable from other assets to be considered separable.
- ESO may on a case-by-case basis propose electrical separability at project interfaces, if the ESO considers there is a cost-benefit justification for this.

Certainty of the need – The application of the certainty criterion has progressed from the ECP in terms of further detail added following Ofgem's consultation and decision. Certainty of the need criterion will be dependent on the project drivers as set out below.

- NOA/tCSNP Driven Projects: Ofgem's decision on implementing early competition considered that defining the "certainty" criteria as those projects that have a "Proceed", "Delay" or "Hold" signal provides an equivalent level of certainty to the ESO's proposal that the solution should be required in at least two FES scenarios. As the development of the CSNP progresses, new signal definitions are being considered. For the purposes of the tCSNP, the ESO will apply this certainty criterion for projects that have a "Proceed – Critical", "Proceed – Maintain "and "Hold" signal in the tCSNP publication.

Recommendation

Projects arising from the tCSNP should have a 'Proceed-Critical', 'Proceed-Maintain' or 'Hold' signal to meet the certainty criteria.

- Connection Driven Projects: These projects will be dependent upon the customer connection proceeding, which can be uncertain. To provide the certainty required for an early competition, we recommend a connections 'certainty' criterion based on whether there are at least two customers requiring the scheme so that we have more confidence the need will not disappear or be significantly delayed.
- Asset replacement: For asset replacement projects, it is envisaged that load related drivers for asset replacement may form part of the CSNP in the future. Specific criteria relating to these projects, for example certainty criteria for asset replacement, will need to be considered alongside their inclusion of future CSNP publications. Needs cases determining the certainty for non-load related drivers for asset replacement can be covered by LOTI and MSIP mechanisms.

Recommendation

Connections 'certainty' is based on at least two customers requiring the scheme.

Cost Benefit Analysis ("CBA"): Those projects which meet the criteria as described above will then be assessed using the Early Competition CBA Methodology detailed in section 3.3.

3.2.1 Project identification for the CSNP and tCSNP

The ESO will assess each project within the CSNP against the new, separable and certainty criteria and publish this in the CSNP document. Further detail of the process can be found in the 2023 NOA methodology[21], specifically the suitability for third party delivery and tendering assessment sections. The ESO will also shortly be consulting on the CSNP methodology. The ESO will then assess projects that meet those criteria against the CBA and provide Ofgem with the output.

In future, multiple projects may be competed at the same time. However, initially, we expect to launch one project for competition in 2024. If there are multiple projects suitable for competition in 2024, Ofgem will need to determine which project it would like to compete initially, and which may form a future pipeline.

[21] https://www.nationalgrideso.com/document/285321/download (Section 4)

Recommendation

Further investigation into projects arising from the tCSNP may be required to assist with the identification of the first projects for competition. The ESO will update stakeholders on this shortly.

The ESO will identify in the tCSNP process all projects that meet the new, separable and certainty criteria. Because network planning processes are currently in transition, and the processes that will underpin the CSNP are not yet fully in place, further investigation into potential projects is likely to be needed to identify the most appropriate initial project. The ESO will work with Ofgem to determine the best way to approach this, including application of the CBA, and will update stakeholders on the processes and rationale that will be used to inform any decisions.

As part of determining delivery routes for all tCSNP projects, Ofgem will publish which projects are exempt from competition in the summer and will announce the first project for competition before the end of 2024.

3.2.2 Project identification for Connections

Connection wider works are expected to feature in CSNP in future years and therefore would be identified for competition through this process. Connections enabling works, however, would not generally feature in the network planning processes and may therefore need to be identified separately to the CSNP.

Recommendation

The identification of projects through the tCSNP, will be prioritised over connection driven projects.

Given the limited capacity to run competitions imminently, the ESO propose to prioritise the identification of projects through the tCSNP, rather than connection driven projects, in the short term. However, if a connection driven project is identified in the interim, this could still be considered for competition should there be a clear benefit to consumers.

In future, the ESO will use its Transmission Work Report[22] database to identify connection enabling works schemes. Utilising this database will allow for identification of connection driven projects which are triggered by more than two customers, as per our reccomendation on certainty for connection projects. The Transmission Work Report is a list of all the transmission reinforcement schemes being carried out across TOs to facilitate customer connections. We would assess this database on a monthly basis to identify any applicable projects for early competition. The database contains all Attributable & Non-Attributable schemes for a customer's project.

In order to enable this, the current Transmission Work Report database would need to be updated with further details, including additional and more granular construction programme details. This may require either a TO licence change or an STC modification. The frequency of report generation may potentially need to be changed from six monthly to every month, to enable timely identification of projects for early competition.

3.2.3 Project Identification for Asset Replacement

Identifying asset replacement projects would require the incumbent TOs to undertake assessments to determine when and how to replace assets with adequate time to tender the work. The ESO is not currently involved in this process and would require information sharing from the TOs to scope these projects.

Due to this complexity, and the expectation that these types of drivers will be rare, it is recommended these projects will not be routinely assessed for competition until the inclusion of these projects within the CSNP for load related drivers. Should a specific need for tendering an asset replacement be identified through other processes

Recommendation

Asset replacement projects will not be routinely assessed for competition until the inclusion of these projects within the CSNP.

[22] Reports and registers | ESO (nationalgrideso.com)

(e.g. through Ofgem's LOTI or MSIP process), the ESO could assess these projects against the early competition eligibility criteria as required.

3.2.4 Project identification for voltage and stability

The ECP considered that voltage and stability services might be tendered under the early competition framework. Since then, however, the ESOs Network Services Procurement (i.e. Pathfinders) programme have continued to develop and are already delivering solutions to these types of needs. It is therefore not proposed to seek solutions to the needs through the early competition framework.

Recommendation

Voltage and stability services should be tendered through Network Services procurement rather than through early competition.

3.2.5 Project identification for compliance

In the case of connection compliance, these will be captured under the category of connection wider works and therefore identified in the CSNP. Smaller scale compliance projects such as switchgear replacement or Supergrid Transformer ("SGT") replacements would either be of small value in comparison to other projects or not separable. As most of these drivers will be captured under the CSNP, a bespoke process is not required.

3.2.6 Governance on identification of projects eligible for competition

Outcomes of the assessment of the new, certain and separable criteria will be peer reviewed within the ESO through the network planning process as part of Stage Gate 1, as set out in the ECP. The output of the CBA will be peer reviewed within the ESO and then subject to review by Ofgem. Ofgem may wish to consider whether consultation is required on the final recommendation to proceed with competition for any given project.

3.3 Cost Benefit Analysis

In the ECP, we said that the ESO shall undertake a CBA before making a recommendation to Ofgem on whether to tender a project. We recommended this would be run for all projects that meet the other criteria. We also recommended the CBA would be updated following pre-tender activity, prior to the launch of the tender. Since the ECP, we have further developed thinking around the methodology and application of the CBA. The detail of this is covered in the sections below.

3.3.1 Summary of the CBA

Following the CBA methodology consultation, responses were reviewed by the ESO in line with the ECP and policy considerations associated with the competition model. Responses were considered and updates to the CBA methodology made.

Recommendation

The CBA is amended based on stakeholder feedback. First of a Kind premium is now quantitatively assessed. The qualitative assessment represents both benefit and cost (disbenefit) and bidder cost assumptions are updated in line with literature.

The CBA assesses the cost and benefit to consumers of delivering a particular project through the commercial model set out in the ECP (factual case) versus a regulatory building block framework based on RIIO-T2 (counterfactual case). It compares a range of costs against a range of benefits for each delivery model and provides a Net Present Value ("NPV")[23] range for each delivery model for comparison. It also contains a qualitative assessment which provides an additional perspective on the delivery model for a project.

The CBA is not a study on the benefits or costs of competition as a policy.

[23] NPV is a discounted cashflow expressed as a single value.

The inputs to the CBA will need refreshing periodically, for example, cost of finance assumptions. Forecasting the benefits and costs is inherently uncertain – the approach was developed based on the information available to the ESO at the time and there are a range of probable outcomes that need to be considered. The CBA will not always produce a binary decision on consumer value and instead takes a holistic approach to considering probabilistic outcomes.

As set out in section 3.2.4 there will be a subsequent process for prioritising the delivery of eligible projects to optimise delivery timescales and consumer benefit whilst minimising market fatigue.

3.3.2 Stakeholder feedback

Details of the CBA methodology were consulted on by the ESO from November 2022 to February 2023[24]. A summary of changes in response to this feedback is set out below.

In addition, our draft decision on the responses to this consultation included in Appendix B1. Full details of the CBA methodology as amended following consultation can be found in Appendix B2.

3.3.3 Summary of proposed updates to the CBA

As a result of the feedback from stakeholders, three changes were incorporated into the CBA. These are as follows:

- **First of a kind ("FOAK") Premium**: One of the responses to the consultation directed us to evidence from the Department of Energy & Climate Change ("DECC") relating to applying a novelty premium of 25 basis points ("bps") in instances where there are 'uncertainties about how the mechanism and its institutions will work in practice'. In response to the evidence, we are proposing to enhance the robustness of the CBA and further emphasise the high returns scenario by including 25bps FOAK premium for the initial tenders. The FOAK premium will also be removed from the qualitative assessment to prevent any double counting.
- **Qualitative scoring mechanism**: One of the responses to the consultation proposed adapting the qualitative scoring mechanism by ensuring the inclusion of disbenefit. Based on the feedback received, we have decided to revise the scoring mechanism by provision of negative scores for a cost/disbenefit. We have made appropriate amendments to the methodology to aid in a consistent interpretation of the qualitative assessment.
- **Bidder cost sensitivity benchmarks**: One of the responses to the consultation included a literature review which suggested a low case bidder cost sensitivity scenario range of 0.8, instead of 0.5. We propose accepting this amendment.[25]

In addition to the above, all three TO's raised feedback on the commercial risk allocation**.** The consultation responses highlighted various potential additional risks being passed onto a bidder under an early competition model when compared to the counterfactual.

The upward and downward movement in prices allowed for as part of the PPWCA allocates most of the risk not within the control of the bidder, to consumers. It is only the presence of a price cap which may result in residual risk to the bidder. Depending on the inclusion and sizing of any PPWCA cap following pre-tender activities, the ESO may consider additional risk costs in the re-run of the CBA should this be demonstrated, and this would be applied in the cost of equity cost on the factual model.

Considerations as regards application of a cap are covered in section 4.3.2. The methodology already allows for consideration of this in the cost of equity costs within the factual case, however as this was an area highlighted by all three TO respondents, we have included this clarification in this summary.

[24] https://www.nationalgrideso.com/document/272126/download

[25] Note that bidder costs are 1% of the project value – so the low case has been changed to 0.8% of project costs from 0.5%.

4 Commercial model

The ECP addressed key aspects of the commercial framework for early competition. It touched upon revenue models, the importance of a competitive bidding process, the structure of payments during preliminary works, and the mechanisms for cost recovery after these works.

Building upon the foundational concepts presented in the ECP, this section offers a more detailed exploration of the commercial framework, focusing on the following issues:

- **Competition and bidder legal structure –** Expanding on the ECP's guidance[26] on project funding, this section delves into the legal structures and considerations to help ensure a level playing field for both TOs and commercial bidders.
- **Preliminary works payments –** Drawing from the ECP's recommendation[27], this section elaborates on the provision for payments during the preliminary works period, addressing stakeholder feedback and the need for financial support for the CATO during this phase.
- **PPWCA –** Building on the ECP's process for updating the TRS post-preliminary works[28], we introduce refinements to reduce judgment in updating costs and provide a clearer framework for assessing 'reasonably foreseeable' costs at ITT stage. We also explore some of the challenges in implementing a cap.
- **Revenue period –** While the ECP provided a mechanism for cost recovery[29], this section revisits the length and end of the revenue period, addressing the challenges posed by the current network planning process.
- **Asset transfer –** Given the proposed changes in setting the revenue period (see above) and the potential need for retendering, this section considers the potential mechanisms to facilitate an asset transfer.
- **Payment mechanism –** This section builds upon the ECP's principles for the payment mechanism, introducing further developments in areas such as measuring availability, service reduction adjustments, and seasonality adjustments.
- **Operational obligations under the codes –** This section elaborates on the ideas presented in the ECP regarding the implementation of code changes to enable early competition with minimal alterations to existing codes, while ensuring compliance with industry regulations and adapting to evolving technologies.
- **Additional works –** Referencing the ECP's stance on new capital investment responsibilities[30], this section delves deeper into the obligations and considerations for additional works, particularly focusing on design adjustments and new investment pricing.

4.1 Competition and bidder legal structure

The ECP[31] sets out that all projects should be partially funded through debt on the best available market terms once preliminary works are competed and construction is ready to start. When bidding, all bidders will use the same assumptions on the cost of debt, provided by the Procurement Body as set out in the ECP. Following the PPWCA and ahead of Financial Close a debt competition will be run by the CATO to secure the debt. The CATO is protected from any changes to the original debt assumptions by a pass through to the TRS.

During the implementation phase we further considered how this approach may fit with the wide range of bidders we are looking to encourage to participate. In particular, how to accommodate both TOs and commercial bidders in the process on a level playing field:

[26] ECP, Section 4.2.1, p.36
[27] ECP, Section 4.1.6, p.49
[28] ECP, Section 4.2.2, p.41
[29] ECP, Sections 4.1.1 - 4.1.4, p.28
[30] ECP, Section 5.3.3, p.93
[31] ECP, Section 4.2.1, p.36

- What should be the requirements on bidders with respect to raising debt that ensure a fair and equitable process – ensuring that no bidder benefits from an unfair competitive advantage or ability to cross-subsidise their bids.

Below we set out our proposed update to the ECP position and the key assumption made at this stage for the purpose of further developing or changing the ECP position.

4.1.1 Development of the ECP position

We have identified five areas that are important when considering what arrangements should be put in place to meet the ECP requirement to run a debt competition:

- **Cost to consumers** – costs to consumers should be minimised as far as possible.
- **Risk of cross-subsidy / unfair commercial advantage** – the risk of this must be minimised, as per TO Standard Licence Conditions B5 & B6.
- **Efficiency of debt** – as the debt competition will take place outside of a competitive procurement process there is a reduced incentive to minimise costs as a preferred bidder, the Procurement Body needs to be able to review the debt competition process.
- **Control of project assets** – should the CATO be unable or unwilling to continue with the project, the counterparty must be able to step in and enact appropriate measures in a clear and efficient way.
- **Level playing field** – whatever arrangements are implemented must ensure that there is a level playing field between commercial bidders and regulated bidders.

There are two potential approaches that bidders can use to secure debt on a project: creating a Special Purpose Vehicle ("SPV") for the project and raising debt against the single revenue stream or using their own corporate borrowing capacity:

- The creation of an SPV covering the design, delivery, financing, and operation of a specific project isolates the project assets from anything else that the bidding company is involved with. In this way it assures that the financing terms are based on the revenue stream of that project and that project's risks alone, and therefore the Procurement Body can have confidence that the debt costs established through the debt competition are reflective of the project risk and efficiently incurred.
- For a corporate entity with existing assets, an alternative to establishing a project specific SPV could be to use its corporate finance facilities. Lenders would provide debt against all the company's assets and cashflows, not just those of the project.

We have compared the potential impacts and benefits of the two approaches with regard to the five areas identified above.

- **Cost to consumers**: The potential benefits of the corporate finance approach are that the debt cost may be lower than those achievable by an SPV because of the bidder being able to spread the risk of individual projects across their balance sheet. If the project has a greater level of risk than the existing portfolio of assets, then the cost of debt financing the project will be lower than it should be based on the actual project risk profile. This is because potential lenders are pricing their debt offer based on their assessment of the company as a whole rather than the individual project.

  However, the converse is also true – that a project with a lower risk profile than a corporate's other assets could lead to a higher cost of debt for a corporate financed project than a SPV could achieve. We also note that a lower cost of debt may not necessarily result in a lower overall cost of finance, as the gearing levels that can be achieved by SPVs are typically higher than corporates due to the detailed allocation of risk which can lead to an overall lower cost of capital.
- **Potential for cross subsidy**: In an SPV, the lenders will closely monitor the cashflows generated by the project and expect to be paid first at the agreed rate, the residual amount being taken by investors. Under the corporate finance approach, project cashflows are combined with cashflow from other assets, and there is more discretion over how cashflow is

allocated. The project's 'cost of debt' and the 'cost of equity' is unclear, with potential scope to move returns around the business.

This ability to cross subsidise (either with finances, resources or services funded through regulated revenues) could lead to suspicions that the corporate entity can 'game' the situation, e.g. by bidding with a low equity rate of return and seeking to clawback return when the debt transfer pricing is set following the PPWCA. This would represent a commercial advantage and could deter other bidders from participating if not addressed, although we expect that this issue could be mitigated through requirements in the CATO's transmission licence to ringfence the project assets from the remaining business, as exists today with NGET's licence.

- **Project reflective debt costs**: As there will be no competitive pressure on the preferred bidder to secure better debt terms than were assumed during the tender, the Procurement Body will need to supervise the debt competition process (see the ECP 5.3.1) to ensure that the debt costs are efficiently incurred (i.e. reflect project risks as priced by the market). The Procurement Body would be better able to prove that the debt costs were efficiently incurred under an SPV approach as the debt terms would be based wholly on the assets of the project. Under a corporate financing approach, it would be more difficult to disaggregate the effect of the rest of the business on the received debt terms and to know whether or not the cost is representative of project risk. Even if confident that the cost of debt is lower than may have been achieved by an SPV, and this benefits the project's consumers, this raises questions as to the treatment of the corporate's other consumers who are impacted by a higher cost of debt than otherwise.

  Comparing the two approaches, the segregation of the project from all other arrangements in an SPV brings transparency to the debt pricing process and helps ensure consumers are incurring costs that reflect the risks associated with the assets they benefit from. While, for a particular project, a corporate financing approach may mean a lower cost of debt than an SPV can achieve, this outcome would indicate that other consumers are facing a higher cost of debt than otherwise.

- **Control of project assets**: Under a number of scenarios (step-in, termination, end of life) there may be reason for the Counterparty to take control of the project assets and either re-tender them or pass them to another entity as 'CATO of last resort'. Whilst the specific arrangements around this will be determined by Ofgem, this can easily be achieved under an SPV structure by taking the shares in the project company. Replicating such arrangements with the assets sitting in a corporate entity would be harder to achieve.

- **Level playing field**: TOs will need to be able to demonstrate separation of competitive activities from their regulated activities in a similar way to commercial bidders, to ensure that they are not benefitting from cross-subsidies. The licences of the three incumbent TOs has provision for the ringfencing of specific activities that are not transmission business activities and should not be funded through their regulatory deals. However, it is unclear how they would be able to run a debt competition under a corporate financing approach without the effect of their remaining asset base and future projects affecting the terms achieved.

  Under the retained EU Third Energy Package holders of electricity transmission licences are required to be certified ownership unbundled by Ofgem, which means that transmission licensees cannot be owned by businesses with generation or supply interests. Any new SPV would have to meet the requirement to be certified ownership unbundled as it would eventually hold a transmission licence as a CATO. However, Ofgem can only grant a derogation to companies that were in existence on 3rd September 2009, which any new SPV would not have been. As NGET was certified unbundled on the basis of the full ownership unbundled model it is anticipated that any SPV it created could be certified on the same basis. However, SPT and SHETL both have generation and supply interests within their group and therefore any SPV they created for early competition would be unable to receive a derogation from the requirement to be ownership unbundled.

In summary, there are many benefits to the SPV structure for a purely commercial

Recommendation

We recommend not mandating any particular legal structure but as set out in the ECP, bidders will need to demonstrate that any arrangement provides transparency in the debt competition, the absence of cross subsidies, and the ability to transfer the project on termination or retendering.

venture. The SPV structure allows for third parties to establish market terms for debt based on the risk profile of the project, and objectively separates out the project from the bidder's other activities. These conditions are difficult to recreate effectively under a corporate structure, potentially leading to an arrangement that could be 'gamed', deterring market participation.

If early competition were to only involve commercial entities, then an SPV approach would be our preferred model for all participants. However, the legal and regulatory arrangements around the incumbent TOs, particularly in Scotland, means that neither approach would work from a level playing field perspective without changes being made in primary legislation or through company restructuring. Requiring an SPV approach without these changes would create barriers to participation by the TOs, which would run counter to the stated aim[32] of competing transmission needs fairly between commercial and regulated entities.

Recommendation

Milestones are proposed by the bidder based on guidance provided by the Procurement Body.

Our preferred position is therefore that the early competition model does not include any obligations on parties to take a particular approach to how they are structured, but notes the key considerations that any company participating must:

- allow project risk to be accurately priced in the debt competition;
- demonstrate the absence of cross subsidies in pricing equity and debt; and
- demonstrate the ability to cleanly transfer the project on termination or retendering.

4.2 Preliminary works payments

In the ECP,[33] we recommended that there should be some provision for payments to the CATO during the preliminary works period. This reflected stakeholder feedback that prior to Financial Close, the CATO may have limited access to funding, and that payments during this period would help remove barriers to entry – enhancing the competitive process.

The ECP further recommended that:

- the maximum amount of any payments is capped by the Procurement Body ahead of each tender (or actual costs, if lower).
- the payments be made on reaching particular milestones.

This section details our recommendations for how preliminary works payments would be calculated, assessed, and paid. Preliminary works payments are only needed if the Procurement Body, ahead of launching a tender and based on evidence from the market, determines that payments to the CATO during the preliminary works period are required to help remove barriers to entry.

4.2.1 Development of the ECP position

Recommendation

If the Procurement Body determines that payments are made during preliminary works, then a cap is set based on the reference design during the pre-tender phase.

Setting the preliminary revenue cap

To provide clarity to bidders, any cap on potential preliminary works revenue needs to be set at the outset of the tender- allowing bidders to assess the financing requirement during the preliminary works stage and plan accordingly.

As such, our preferred position is to set the maximum cap based on the indicative solution set out in the CSNP. This is consistent with the position, set out in the ECP, that the maximum payment available should be the same for each bidder.

As part of the pre-tender phase, an estimate of the associated preliminary works cost would be made. Initially, this may be based on experience in the development of onshore transmission by the

[32] ESO Early Competition Plan letter, Ofgem, September 2019
[33] ECP, Section 4.1.6, p.35

incumbent TOs. As the early competition market develops, and several tenders have been completed, data from the preliminary works period can be used to refine these estimates.

To incentivise the CATO to 1) control costs during the preliminary works phase; and 2) look to achieve Financial Close and start construction, we do not consider it appropriate to pay 100% of the estimated preliminary works cost. As part of its exercise to determine whether preliminary works payments are required or not for a particular tender, the Procurement Body could determine what proportion of estimated costs it considers appropriate to set as the maximum cap. As an initial position, capping payments at up to 50% of the estimated preliminary works costs may achieve a suitable balance between cost control and participation incentives, subject to further evidence gathered during pre-tender activities to ensure that no perverse incentives are created.

Preliminary works milestones

As set out in the ECP, preliminary works revenue will take the form of payments for achieving specified milestones.

Figure 2 below outlines the proposed process for how these payments would be assessed and made.

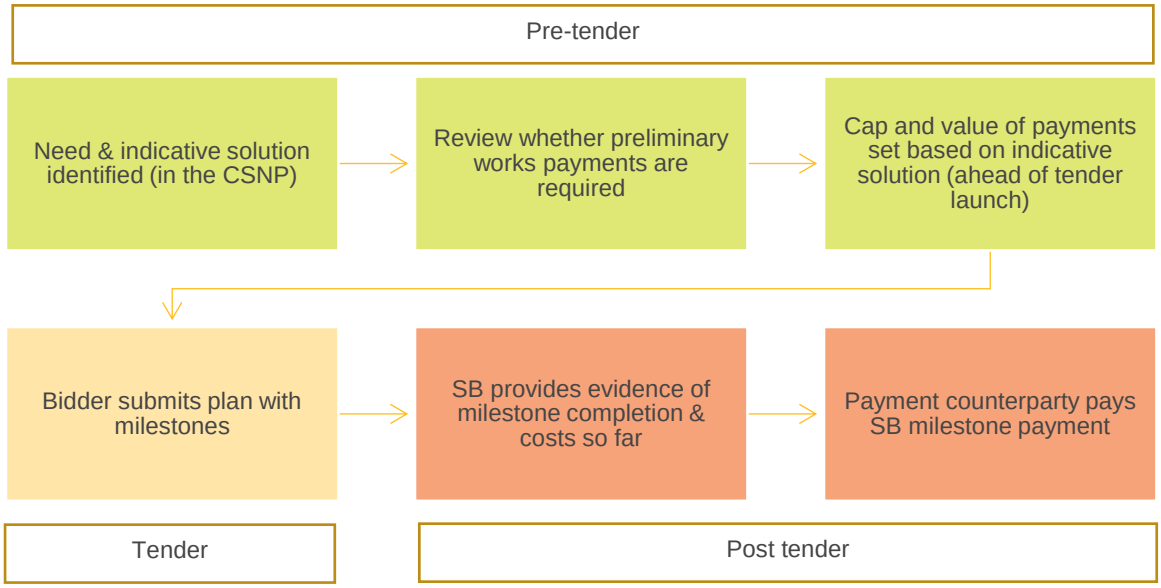


Figure 2: Milestone payments

Given that different solutions may bring with them different sets of milestones, we propose to ask bidders to suggest milestones in their delivery plan that they submit as part of their tender (by allocating the provided cap for the milestone payments to the particular events). These milestones will be refined and agreed prior to licence award as part of the tender process and included into the bidder's financial model.

As a basis for the bidder to propose milestones, the Procurement Body would provide guidance as to suitable stages of development for making payments. Below are provided some examples of potential milestones (to be tailored specifically to each solution):

- The grant by the relevant local planning authority (on terms and conditions reasonably acceptable to the Company) of permission for the proposed erection, construction operation and/or site clearance required (including all and any ancillary erections, structures and equipment, plant, and apparatus) and use of the Asset for the provision of Electricity Transmission services in accordance with the terms of the Agreement.
- The CATO has obtained all land rights upon which the Asset is (or is to be) situated.
- The CATO has in place (as can reasonably be expected to be in place by the PTM ("Post-Tender Milestone") Date), without limitation, those consents, permissions, approvals, licences,

exemptions, and other permits (in legally effectual form) as may be necessary to commence, carry out, maintain and ensure the provision of the Electricity Transmission services in accordance with the terms of the Agreement.

- Entry by the CATO into a binding agreement (on terms acceptable to the Company) for the connection of the Asset to the public electricity supplier or to the National Electricity Transmission System to receive a supply of electricity from and (where relevant) export electricity onto the National Electricity Transmission System.
- The CATO has put in place the necessary orders for all necessary plant, equipment, apparatus, machinery and other materials with long procurement and/or delivery periods.
- Entry by the CATO into a binding engineering procurement and construction contract and/or a supply agreement with suitable suppliers as applicable for the provision of relevant equipment and services in manufacturing and erecting the Asset (including all ancillary and associated works in relation thereto) in accordance with the Project Plan. This should cover the main elements of the work.
- Produced a final detailed design.
- Declaring they are ready to start the PPWCA process.

The CATO would be required to provide suitable evidence that a milestone has been met to claim a payment. As, per the ECP, the payment will be the lesser of the relevant cap allocated to the milestone (see above) and actual costs incurred by the moment of the milestone achievement. The CATO would also have to evidence their expenditure to date – again supported by appropriate evidence (invoices, timesheets etc.).

The review of preliminary works payment claims would be undertaken by Ofgem. Preliminary works payments will be deducted from the TRS during the recalculation of the TRS following the Financial Close under the PPWCA principles set out in the next section.

4.3 Post Preliminary Works Cost Assessment

In the ECP, we set out the process by which the TRS would be updated following preliminary works[34] – including how any claims for an upward adjustment in underlying construction costs, estimated at ITT stage, would be treated.

During the implementation phase we have identified an area where that process could be refined:

- To reduce the level of judgment required in updating underlying costs, we are proposing an additional step in the PPWCA assessment process, with indexation applied based on pre-agreed indices.

During the implementation phase we also further developed thinking in several areas:

- Central to the process is an assessment of whether the cost was ‘reasonably foreseeable’ at ITT stage. The ECP did not provide details on how this assessment was to be made. We set out further thinking here.
- The ECP also left open how the level of the cap on upward adjustments should be set, noting the importance of finding the right balance between consumer protection and attracting market interest in early competition. We have developed a basis for setting a cap if required, although we have also identified several issues with the cap as a concept which need further investigation.

Below we set out our proposed changes and updates to the ECP position and the key assumptions made at this stage for the purpose of further developing the ECP position.

[34] ECP, Section 4.2.2, p.41

4.3.1 Changes to the ECP position

Indexation process step

In the ECP,[35] we set out a process whereby the CATO would submit a claim for cost increases in underlying construction costs identified during preliminary works.

There are expected to be two main drivers of cost increases over this period: 1) changes to design necessitated by the result of consenting and surveys, and 2) inflation – both over the period and forecasts for construction.

Recommendation

Our preferred position is to add an additional step to the PPWCA process, with indexation applied to underlying bid costs according to indices selected by the bidders in their tender.

Market feedback suggested that by separating the two drivers of cost increases, and making the adjustment for inflation more mechanistic, the cost assessment process could be made more transparent and attractive to bidders. We can see the merit in this approach.

Under a late competition model, construction costs are typically fixed at the point bids are submitted. With construction expected to start shortly afterwards (c.6-12 months), the contractor's primary concern is to estimate potential inflation during the construction period.

However, under an early competition model, the time between bids being submitted and construction starting is extended by the length of the preliminary works phase – potentially 4-5 years. This exposes contractors to the additional risk of inflation during this period.

We are therefore proposing to separately calculate the indexation element of the upward adjustment during the PPWCA process, as set out in Figure 3 below, to make it more mechanistic:

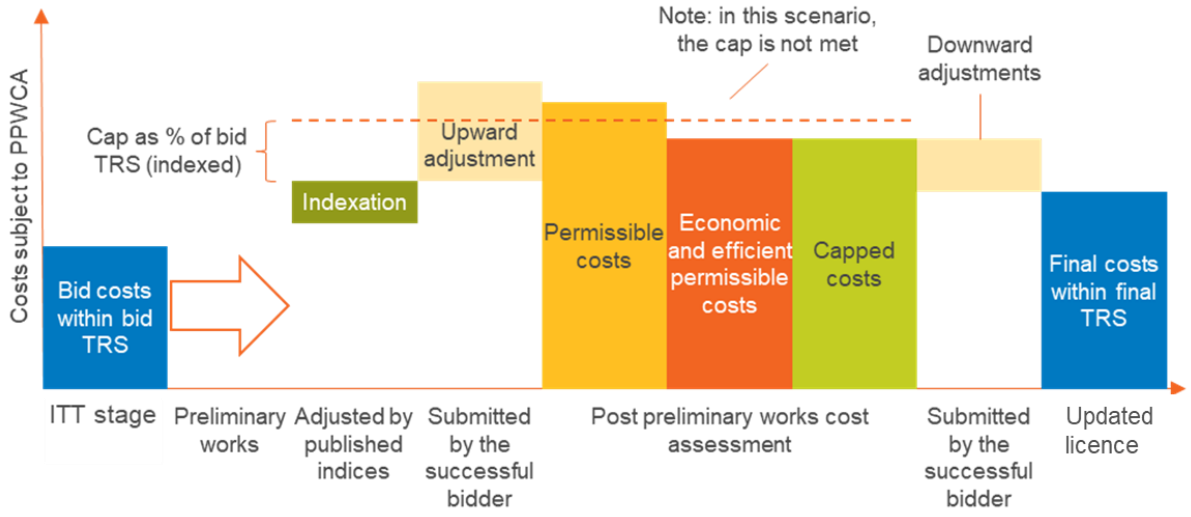


Figure 3: PPWCA process (including indexation adjustment)

We are proposing to specify various appropriate inflation indices (potential sources include BCIS and BEAMA[36]) to calculate the indexation allowance at the PPWCA. To comply with the principles of procurement law, it will be necessary for the indices to be set at the outset (i.e. at the tender stage) and for the approach to be predefined. Bidders will therefore be able to allocate their cost buckets to the pre-determined indices, subject to a reasonableness check by the Procurement Body, and can prepare their bids accordingly, using the forecast data for each index in their financial model to calculate their bid TRS.

[35] ECP, Section 4.2.2, p.41

[36] BCIS: https://bcis.co.uk/ BCIS gives a wide variety of labour and product price indices, mainly in the Construction category. BEAMA: https://www.beama.org/?pg=home BEAMA is the UK trade association for manufacturers and providers of energy infrastructure technologies and systems. They provide a set of indices and formula that can be used to mitigate contract risks associated with electrical and mechanical products and projects by tracking the cost of materials and labour. There are 16 standard formulae available (ranging from basic electrical/industrial equipment to large power transformers) that can be used for different engineering projects.

At the PPWCA, actual indexation up until the cost assessment date would be applied based on information from the same data sources used for the original forecast data. New forecasts for each index as from the cost assessment date would also be applied to cover the construction period.

Recommendation

Our preferred position is to align the 'reasonably foreseeable' test with the technical evaluation of deliverability as set out in the ITT tender documents.

4.3.2 Development of the ECP position

Reasonably foreseeable test

For cost increases in preliminary works driven by changes to design necessitated by the result of consenting and surveys, the ECP sets out a test:

was the cost change for a reason which could have been foreseen by a competent bidder following good industry practice?

If the cost increase was 'reasonably foreseeable', at the time the bid was submitted then it is not considered permissible and is rejected. We have now developed our thinking on what constitutes 'reasonably foreseeable'.

Any assessment of 'reasonably foreseeable' should be consistent with the technical evaluation at ITT stage, which seeks to measure the 'deliverability' of the proposed solution. The PPWCA would therefore apply, as its test, the information the bidders would have had, had they undertaken the work necessary to achieve the highest score in each of the relevant technical evaluation categories at ITT stage. Section 5 sets out further details on the level of evidence expected at ITT stage, which will define 'reasonably foreseeable'.

Since the ECP was written, the CSNP process has been developed. Work in the implementation phase has concluded that competition should recognise optioneering work carried out as part of this process (as explained in section 2.2 above). This means that all early competition bidders will have a common baseline level of information at the outset of the tender stage including (inter alia) a broad route study area upon which they can develop as part of the preparation of their bids.

The extent to which bidders can rely on information developed by the CSNP and the ESO and what constitutes reasonably unforeseeable will need to be assessed as the CSNP process develops and as part of the pre-tender licence drafting stage. It will depend on the actual work undertaken by the ESO and the confidence in the underlying information.

Although CSNP information will be provided, bidders will still need to undertake additional work at tender stage to inform and facilitate the development of competitive bids. The amount of information bidders are able to assemble prior to ITT stage will be constrained by (i) the willingness of bidders to undertake work given the potential cost (both direct costs and opportunity costs); and (ii) the potential disruption to landowners, regulators and authorities (and the consequent reputational damage to the sector) from having multiple bidders undertaking investigations and making applications to inform their design. Therefore, the expectation is that bidders are broadly limited to undertaking desktop studies.[37]

We recognise that bids based solely on publicly available information might result in a CATO being selected whose solution, following further development, is found to be more expensive than an alternative bidder's. Planning processes are of particular concern as these may result in changes to route / location, during development or as a potential outcome of the Developmental Consent Order, ("DCO") process. This could necessitate substantial design (and cost) changes (see section 5.13) or, in extreme circumstances, render a CATO's proposed route unusable.

The technical evaluation of bidders' proposals will be limited to desktop research i.e., bidders will not improve their chances of winning a tender if they do stakeholder engagement. Therefore, any information which impacts their design which was only discoverable during preliminary works stage can be categorised as 'reasonably unforeseeable'.

37 Bidders will have reference to the work undertaken as part of the CSNP as a common baseline, above which they will undertake additional work as necessary to price their bids.

This approach would look to strike the appropriate balance between gaining confidence in the designs proposed by bidders at ITT stage and avoiding general disruption to local communities at a stage when the actual solution has not been confirmed.

Stakeholder feedback

The assumptions set out in the strawman were broadly considered to be correct by some stakeholders, but others raised concerns about the unpredictability of ground conditions (including the lack of accurate data available, potential archaeological finds), potential planning issues (including the time it takes to obtain Development Consent Orders ("DCO") for example), difficulties procuring the relevant packets of land, approvals, and road networks for managing and transporting heavy loads.

Some suggested ways of mitigating these risks were proposed, often including the drilling of boreholes, more studies etc. It was suggested that a consultant or specialist third party firm be asked to look at the land, or that a land purchase agreement be arranged or there be a right to survey. But where mentioned it was also usually explained that these alone would not be sufficient to de-risk.

It was made clear that there is not a standard answer that can be given as regards what is foreseeable and what is not: there are some desktop tools available, but experience also suggests that there may well be issues once you get to site. Some stakeholders said that archaeological finds or similar should sit outside of the cap. Some also implied that if some of the risks mentioned above could not be mitigated adequately then bidders will need to build such risks into their pricing and will submit very high bids.

Setting a cap

For those costs that are not considered 'reasonably foreseeable', the ECP proposed that a cap is applied to the amount of upward adjustment. The use of a cap is expected to:

- Protect consumers from an open-ended obligation to absorb cost increases in the solution selected at ITT stage.
- Help protect the Procurement Body from legal challenge should the cost of the selected solution increase to levels that would have changed the outcome of the procurement process.
- Push the responsibility for assessing the risk associated with each solution on to bidders. That is, if there is no cap, the Procurement Body would (as part of the ITT bid assessment process) have to determine the level of cost risk associated with each bid in order to distinguish between high risk and low risk solutions being put forward.
- Incentivise bidders to mitigate the risks associated with preliminary works as much as reasonably practicable during the bid stage based on desk-top studies. Bidders are under competitive pressure to bid as low as possible whilst leaving themselves sufficient headroom to manage risk.

Recommendation

Our preferred position is that a cap on upward price adjustments should be used. 40% may be an appropriate level but this needs to be considered case by case during pre-tender.

However, the ECP did not specify at what level the cap should be set. Having undertaken further work, listened to stakeholders and considered relevant published guidance regarding the level of confidence achievable at each stage and associated activities, we consider that, should a cap be used, 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 are submitted. Based on desktop studies, the construction industry would typically expect to estimate costs to within 50% of outturn costs. The PPWCA process allows for a risk premium to be applied to construction costs. Typically, the industry would expect to apply a

risk premium for construction of c.10%. This suggests that between ITT stage and construction start, a 40% cap on construction cost increases should be applied.

During market engagement, several concerns were identified with the use of a cap:

- **A cap will deter bidders –** Early competition is a new market, potentially making bidders uncertain about the potential outcome from the PPWCA process, particularly as the Procurement Body will have to set the level of the cap prior to any proposed projects being submitted. In addition, some bidders will have limited data on the cost of undertaking such work in the UK and be concerned that incumbent TOs have access to better information.
- **Bidders will add significant risk premium to their bids –** Given the above, there is a potential concern that large risk premiums will be added to bids and that consumers end up over paying should the risks not materialise.
- **Bidders will walk away once the cap is reached –** Where the bidder has underestimated the risk associated with their proposed solution or experiences significant unforeseeable cost increases and the cap is exceeded, bidders could decide to not proceed to construction. This has the potential to result in significant operational risk and cost increases for the consumer with essential network reinforcements being delayed by several years.

Taking market feedback into account, further work undertaken during the implementation phase has concluded that a market-tested and calibrated cap should be included in the PPWCA arrangements for the following reasons:

- **A cap creates the right pricing incentives for bidders** – The tender process must be able to distinguish between a low priced (at the minimum expected outturn) but high risk (with a wider range of possible outturns) bid and a higher priced but lower risk bid. Without a cap, bidders are incentivised to bid the lowest credible price (based on the reasonably foreseeable information) to win the competition – see scenario A in Figure 4 below.
- **With a cap, bidders are incentivised to price the risk of reasonably unforeseeable cost increases** (i.e., the range of possible of outturns) and therefore will bid the price where the top of the estimated outturn range sits within the cap – see scenario B in Figure 4 below.

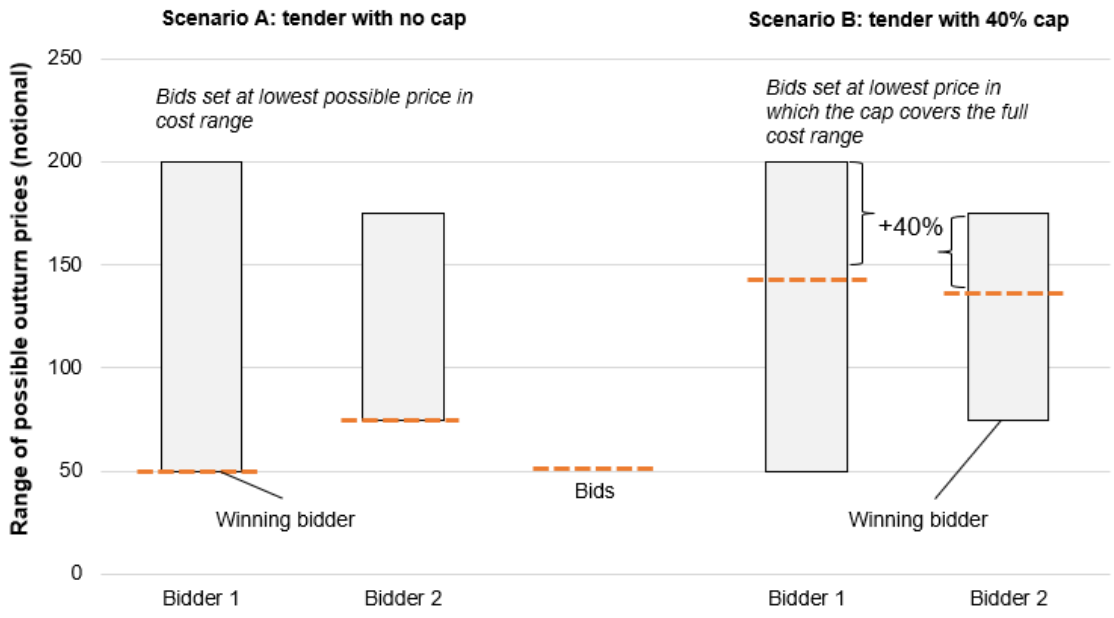


Figure 4 – Comparing bids: high-priced/low-risk vs. low-priced/high-risk bids.

- **Up to a point, a cap is a more attractive option for bidders –** The cap operates as a threshold, below which the CATO takes 0% of the pain and 100% after it. Figure 5 illustrates that equity is in a better position up to and beyond the cap when compared against (illustrative) alternative sharing approaches.

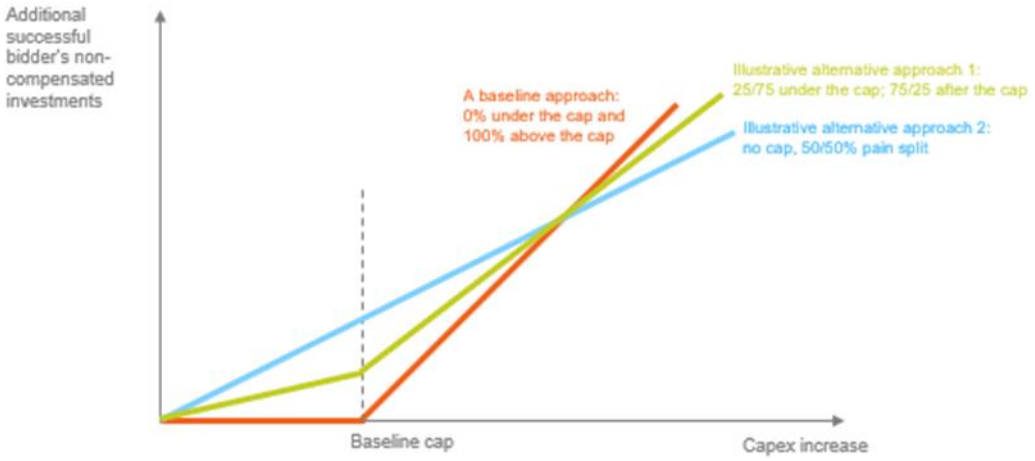


Figure 5 – Illustration of the cap's impact on the sharing of reasonably unforeseeable cost increases

- **Bidders remain incentivised to continue with the project beyond the cap** – Two key factors will maintain the incentive to continue beyond the cap: (i) the presence of several limited allowable reopeners in the PPWCA, such as force majeure, which limits the number of outturn scenarios where costs could increase by such a significant amount; and (ii) the security posted by the CATO (equivalent to 10% of construction costs), which provides an incentive to manage risk effectively and not walk away.

In conjunction, these factors mean that a cap incentivises bidders to price risk efficiently, to manage it effectively and to remain committed to the project in a scenario where costs increase significantly. Therefore, we consider that the cap creates the right incentives for bidders and should be more attractive to the market than other cost sharing mechanisms.

Recommendation

A cap on upward price adjustments creates the right incentives for bidders and should be more attractive to the market than other cost sharing mechanisms.

However, the ECP recognises the potential issue of introducing a new procurement model to the market and that bidders may initially be unfamiliar with the application of a cap. The further work undertaken during the implementation period has identified three ways in which the risk of failure of early competition due to the implementation of a cap can be mitigated, albeit not eliminated completely:

- Setting a higher cap, above the 40%, may provide greater confidence to bidders that costs will be recoverable. While a higher cap potentially increases costs to consumers in the initial tenders, this may be outweighed by the benefit of establishing early competition as a procurement model, and the cap could be incrementally reduced in subsequent tenders.
- Bidders will be made aware of the level of the cap at the outset of the tender. As such, they have the opportunity to set their bid such that the cap is adequate given their assessment of the riskiness of their proposal. However, this relies on the bidder being able to accurately forecast unforeseeable risks, and there is also a commercial incentive on them to keep their required risk premium low to avoid being at a competitive disadvantage compared to other bidders in the tender.
- The ECP set out that the CATO should provide security to cover the preliminary works period. We are proposing the level of security is 10% of construction costs – in line with the security typically posted by a contractor during construction. Together with the cap (but excluding any risk premium added by the bidder itself), costs would have to rise 50-60% before it may become economic to walk away.
- In addition, compared with the ECP proposals, the CSNP in comparison to the NOA will limit the range of unforeseeable costs as it will take into account social and environmental factors and will be endorsed by the Government.

Whilst the above points provide a degree of mitigation for the risks identified, there remains a significant tension between the need to maintain commercial pressure on the CATO and the need to ensure the CATO does not abandon the project due to unforeseeable setbacks.

The pre-tender period will involve thorough and detailed market engagement which will help to ensure that this tension is balanced appropriately. The expectation is that during that period the market will provide clear signals about the level of risk that is attractive to them. This will be impacted by the arrangements, global macroeconomic conditions, other opportunities in the market, the reference project's specific risks and many other factors, all of which will need to be considered in the calibration of the risk allocation and market attractiveness. The proposed (40%) cap set out above could therefore be used as a starting point for negotiation during the pre-tender period, with the final percentage decided on a case-by-case basis.

Negotiation of the cap must seek to maximise competitive pressure by making the model attractive to the market but also protecting consumers and creating incentives for bidders to deliver efficiently. To determine the optimal balance of risk we will rely on the market players to signal to us when the arrangements are not attractive. The market may not signal clearly to us if our starting position is already attractive and places more risk on consumers than bidders would have needed to bid in. Ofgem will likely also want to consider during that period, potentially following engagement with government, the trade-offs between consumer value for money and achieving net zero commitments and how that should be reflected in the early competition arrangements.

4.4 Revenue period

In the ECP, we set out the mechanism by which the CATO would recover their costs once the solution is delivered – including the revenue model,[38] the start of the revenue period[39], the length of the revenue period[40] and arrangements at the end of the revenue period.[41]

During the implementation phase, we have identified several areas where that position needs to be updated:

- It is not possible to accurately identify the period of time for which the asset will be needed (i.e. the length of the need) due to current limitations of the network planning process. It is therefore necessary to establish an alternative basis for setting the length of the revenue period.
- Given the above, we have revisited the appropriate options for the end of the revenue period, recognising the uncertainty around the need and selected a preferred one.
- The ECP set out an intention to accommodate revenue stacking[42] opportunities to the extent possible. We have developed a preferred position on this, which is set out below.

Below we set out our proposed changes and updates to the ECP position and the key assumptions made at this stage for the purpose of further developing or changing the ECP position.

[38] ECP, Section 4.1.1, p.28
[39] ECP, Section 4.1.2, p.29
[40] ECP, Section 4.1.3, p.30
[41] ECP, Section 4.1.4, p.31
[42] Revenue stacking is the ability to earn revenue simultaneously from multiple sources using the same capacity.

Key Assumptions

The proposals below are based on the following key assumptions:

1. **Network needs are likely to be long lasting, and best met by a long-term solution**

   In setting the revenue period, we take the asset life of a typical overhead line solution as a guide. While this does not preclude other, shorter-lived assets, it may make them less attractive given the need for earlier reinvestment.

2. **Residual value payment on decommissioning can be financed out of TNUoS**

   If, at the end of the revenue period, it is determined the asset is not to be retendered, then there will be no incoming asset owner to finance the residual value payment.

To allow for retendering it needs to be possible to transfer existing assets to the winner of the tender. In the event of a failed retendering, the asset will need to be transferrable to an operator of last resort. Ofgem is currently developing a 'CATO of last resort' process (section 4.5.1).

4.4.1 Changes to the ECP position

Length of the revenue period

The ECP considered three options in setting the length of the revenue period – in line with network need, in line with asset life, and in line with precedents (e.g. Public Private Partnerships ("PPPs") and OFTO Offshore Transmission Owners ("OFTO").

Our preferred position was to adopt a revenue period that matched the length of the need (up to a maximum of 45 years, in line with RIIO-2, and subject to certain adjustments), protecting consumers by:

- not having to procure a replacement solution during an ongoing need; and
- not paying for a solution when it was not required.

Recommendation

Our preferred position is to adopt a standard 35-year revenue period for early competition projects. We further recommend that the asset is amortised over 40 years, allowing for a residual value payment at the end of the period.

During implementation, we identified that the current network planning approach does not allow for the end of the need to be forecast for network solutions at the point procurement is launched as the network planning process assumes an enduring need. This is due to the time period over which supply and demand is modelled in the ESO's Future Energy Scenarios ("FES") and options considered in the NOA (to be replaced by the tCSNP and subsequently the CSNP) compared to network asset lifespans.

We have therefore reconsidered the two remaining options identified in the ECP as alternatives:

- **Setting the revenue period in line with asset life**: the ECP considered having a length of revenue period that could vary, set according to the asset life of the CATO. This was to accommodate a range of potential solutions in early competition with very different asset lives. This document proposes that only network solutions will be competing as part of early competition and therefore this challenge is no longer relevant.

  While it is not currently possible to identify the end of a need, transmission needs are expected to be long lasting. We therefore propose to set a fixed revenue period to ensure that solutions are available for a minimum length of time.

- **Setting the revenue period in line with precedents**: precedents such as PPPs and OFTOs generally adopted a revenue period of 20-25 years - driven by considerations including length of the need, major maintenance, and the availability of debt finance.

  We note that the precedents are based around very different types of assets (e.g. buildings, transport, or serving a single generation asset) to those expected for onshore transmission. The most likely form of solution to an onshore transmission need – an overhead line – does not typically require major maintenance for 40 years. We consider this a useful benchmark around which to define the revenue period and an appropriate period over which to amortise the asset.

  Given uncertainty over the length of the need at the point of procurement, there would be merit in having the option to undertake the major maintenance and extend the life of the asset. Enabling this would require a period of time (around 5 years) for reinvestment to take place before the asset fails, suggesting an optimal revenue period of 35 years.

A 35-year revenue period will be challenging for a number of lenders, in particular banks, where market engagement suggests a tenor (including the construction period) of around 20 years is preferable. Other lenders, such as bond providers, have indicated they can lend longer but typically on less flexible terms (see Section 4.8).

An assessment of alternative financing structures would be undertaken by the CATO as part of their debt funding competition following preliminary works. To keep as wide a range of potential financing options open as possible, we propose that Ofgem should offer to take refinancing risk (upside and downside) to allow for shorter term debt that may be available on more competitive terms. The TRS would therefore be fully adjusted at Financial Close to reflect the original cost of debt – and adjusted again following the permitted refinancing. This arrangement would be separate to any gain sharing provisions where a CATO requests a refinancing.

Figure 6 below summarises our preferred position and the interaction between asset life, revenue period and debt repayment.

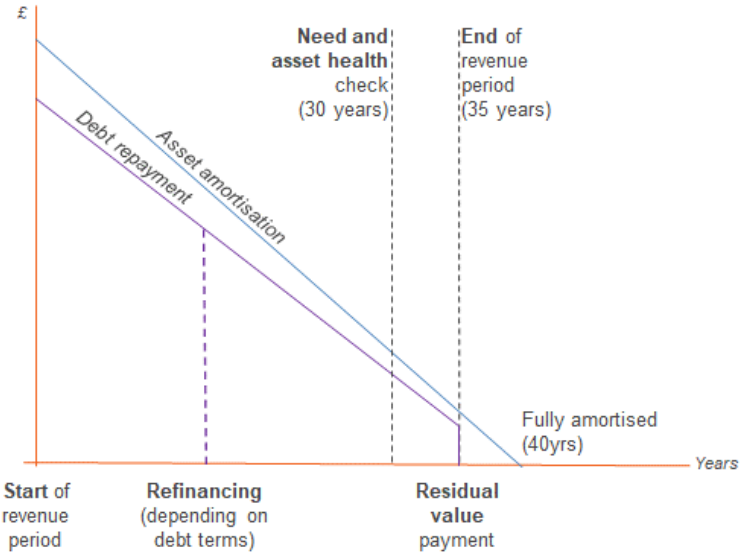


Figure 6: Asset life, revenue period and debt repayment

The five-year difference between the asset amortisation period and the revenue period means that the asset has a residual value. In the ECP,[43] where the revenue period was set equal to the length of the need, any residual value risk was assumed to sit with the CATO. Now, with a defined revenue period and the option to extend, we propose that the residual value amount is predefined (calculated as 5/40ths of the opening asset value) and paid in a lump sum at the end of the period.

Setting the residual value up front will help drive consumer value by potentially allowing bidders to raise debt against the amount and providing a pot of money against which any rolled up payment deductions or cost of rectifying poor asset condition could be offset.

[43] ECP, Section 4.1.3, p.30

Stakeholder feedback

Several stakeholders suggested that solutions might not be able to attract the best value debt where the tenor is up to 45-years. Debt of that duration may be of interest to institutional investors but could deter banks, limiting competition. Stakeholders also suggested that a key consideration for lenders would be how the residual value payment is structured.

End of the revenue period

The ECP considered three options for the end of the revenue period where the need remained and there was some residual asset value. Retendering the need (into which the existing asset owner could bid), extension of the existing licence by negotiation, and extension of the existing licence on pre-agreed terms.

The options were premised on the initial revenue period being set for the length of the need, with no specific 'asset health' requirements. In moving to a defined revenue period, and the possibility that the need may extend well beyond the initial period, we have to reconsider what the end of revenue period options now are.

Recommendation

Our preferred position is to retender the asset should the need extend beyond year 40 – transferring the existing asset to the winner of the tender.

Should the need only extend up to year 40, we would recommend agreeing terms with the existing operator for the period.

To accommodate a potential extension, we are proposing that five years prior to the end of the revenue period (year 30, see Figure 6) a need and asset health check is undertaken. In respect of the need, it may identify:

- **The need ends at or around year 35:** it is expected that the decommissioning provisions would apply. The CATO would be paid the residual value payment out of TNUoS;
- **The need ends at or around year 40:** the revenue period would be extended as required. With no new investment required, a payment of operating and maintenance ("O&M") costs (plus a margin) would be appropriate during the extension. The residual value payment would need to be made from TNUoS to avoid the need for the incumbent to raise new finance.

  Establishing the relevant O&M costs and margin could be done at the time based on historic costs and use a regulatory decision-making process as set out in the licence; or
- **The need extends materially beyond year 40:** the ECP assumed that, given the assets were built to meet a particular need for its duration, the CATO could own the assets – decommissioning the assets once the need was over. This restricted the ability to run a competitive process for an extension as the incumbent would have a substantial advantage given the assets they held. Our preferred position was therefore not to retender, even though – potentially – a competitive process should drive efficient pricing.

  With the revenue period no longer set by the length of the need, it is more likely that the need will extend beyond the term of the initial revenue period – making retendering more likely. A competitive retendering process, ensuring that the cost of the extension represents value for money, becomes more important. To facilitate this, the existing assets need to be transferable to the winning bidder (who would finance the residual value payment), creating a level playing field.

  In the event of a failed retendering, there would need to be a process in place to identify a party to take assets and continue to meet the need. We note Ofgem is continuing to develop 'CATO of last resort' proposals.

Our preferred position, to allow for retendering should the need extend beyond year 40, would mean changes to the ECP position on 'asset health'. In the ECP, there was no consideration given to the state of the asset at the end of the licence. Under the revised proposal, asset health is important to establish the asset value at the point where the asset may be retendered.

To ensure that the asset is in a condition suitable for retendering, it would be necessary to place some requirements either 1) around the condition of the asset at the need and asset health check point, or 2) the maintenance regime followed up until that point.

Our preferred position is for bidders to submit details of their maintenance strategy during the bid stage and for this to be included within the technical assessment of bids, and for there to be an asset condition survey completed at the end of the licence period. We recommend that the CATO shall commission an independent assessment of the condition of the asset 5 years before the end of the licence period to include details of remaining life and remedial works required.

On receipt of the assessment, Ofgem will consider the remaining asset health and condition, the CATO's maintenance strategy, and consider any penalties appropriate for poor asset health. Following a re-tender event, the winning bidder from that process (if different from the incumbent) will then purchase the asset from the incumbent CATO at a price in line with the residual value of the asset less any penalties as stipulated in the condition assessment report.

4.4.2 Development of the ECP position

Revenue stacking

In the ECP, we said that "we would support the model accommodating revenue stacking opportunities, to the extent they are possible".[44]

As set out above, with the changes to the revenue period and the end of revenue options we are looking to allow for the transfer of assets at the end of the initial revenue period. With revenue stacking, this would be more complex or potentially unachievable.

If the assets providing the solution are also earning revenue from other sources, the contractual arrangements around those assets are likely to be complex with potentially multiple claims by third parties. This would hinder the transfer of the assets following a retendering.

As such, we recommend that Ofgem consider whether their licencing arrangements can sufficiently delineate any additional services a CATO may wish to provide that utilise assets that may need to be transferred.

Recommendation

Our preferred position is to require that assets are dedicated to meeting the need competed under early competition. This would not allow for revenue stacking.

4.5 Asset transfer

The ECP[45] assumed that the revenue period would be set equal to the length of the need, with decommissioning or a negotiated extension the most likely final step in the process[46]. As set out in Section 4.4, it is now proposed that the revenue period will be set for a fixed term of 35 years, following which the asset may be transferred for refurbishment and ongoing operation to potentially a new owner identified through a further procurement process.

Recommendation

We propose that for network solutions, an asset transfer is required at the end of the revenue period for network solutions (via Ofgem) and non-network solutions through appropriate contractual arrangements.

- This change in approach requires further consideration of the ECP's position on asset transfers[47] – that "there will be no transfer throughout or at the end of the revenue period, other than in a CATO of last resort position"; and

[44] ECP, Section 4.1.1, p.29
[45] ECP, Section 4.1.3, p.30
[46] ECP, Section 4.1.4, p.31
[47] ECP, Appendix 2 - Heads of Terms, item 3.7, p.19

- Consideration also needs to be given as to how termination[48] and compensation on termination[49] may be impacted by the introduction of an asset transfer mechanism.

Below we set out our proposed update to the ECP position and the key assumptions made at this stage for the purpose of further developing or changing the ECP position.

Key Assumptions

1 **Ofgem is able to mandate a transfer of assets**

Legislative changes may be required to provide for this, but are currently under consideration in relation to 'CATO of Last Resort'.

2 **Potential lump sum payments following a termination can be financed out of TNUoS**

Following a termination, the asset may be transferred to an operator that is unable or unwilling to finance any termination payment. In such cases the amount would have to come out of TNUoS.

4.5.1 Development of the ECP position

Asset transfer at the end of the revenue period

The ability to transfer the asset to a new owner/operator as required is critical to our proposals where the need is expected to extend significantly beyond the initial revenue period (see Section 4.4).

For a network solution, any mechanism for transferring the asset at the end of the revenue period should be consistent with the CATO of Last Resort process being developed by Ofgem.

The CATO of Last Resort process is expected to be based on the OFTO of Last Resort process but amended to take account of Ofgem's recently acquired powers under the Electricity Act 1989 to make 'a property scheme'.[50] Previously, the OFTO and OFTO of Last Resort would have had to negotiate a commercial agreement for the transfer of assets, but the recent changes would allow Ofgem to mandate the transfer.

Should such approach be adopted in relation to the CATO of Last Resort, a similar mechanism could be explored for the end of revenue period. Bidders would need to be made aware of the intention to apply the process within the tender documents to allow them to price their bid accordingly.

Where the solution provider is an SPV, this may be through a contractual obligation to transfer the shares. While our preferred position is not to mandate that bidders form SPVs (see Section 4), we would expect all bidders to demonstrate the ability to transfer the project assets as required.

Termination

The ECP provided for termination following a bidder or 'no fault' default. The ability to terminate a CATO following a persistent breach or for long running under performance is an important additional incentive to encourage timely and safe delivery and operation of the asset.

Recommendation

We recommend that termination arrangements are revisited once the approach to asset transfer is established.

However, without the ability to transfer the asset following a termination the incentive is significantly reduced. Termination would mean that any ongoing benefit from the asset is lost and there is no opportunity to rectify the problems and restore performance.

If, as set out above, an asset transfer mechanism is introduced to early competition, further consideration would need to be given to its impact on termination:

- **Compensation on termination:** the value of the asset being transferred could form the basis of any compensation payment to the CATO. This may provide additional comfort to lenders that there will be some recovery of their outstanding loan amount following termination. Any

[48] ECP, Appendix 2 – Heads of Terms, item 4.5, p.22
[49] ECP, Appendix 2 – Heads of Terms, item 4.6, p.23
[50] Amended by the Energy Act 2023

termination payment may need to be financed from TNUoS to the extent an incoming owner is unable or unwilling to finance. Note that compensation due to CATO default (e.g. due to continued poor performance) would not be 100% of the revenue period so that shareholders are properly incentivised.

- **Timing:** unlike the end of revenue period transfer, where the date of the transfer is well established and can be planned for, a termination may occur with significantly less notice. The time available to either appoint a CATO of Last Resort or run a new procurement process may be considerably shortened. Any termination arrangements would have to accommodate this.
- **Flexibility:** any termination arrangements should reflect where in the project lifecycle the termination occurs. The nature of the assets will be significantly different whether the termination occurs in preliminary works, construction or operation. There may need to be alternative termination arrangements depending upon when the default occurs.

We will review the termination provisions and provide more detailed analysis once the position on asset transfer is established. This will provide a basis for defining the termination process and setting appropriate levels of compensation on termination, considering the PPP/PFI examples.

Stakeholder feedback

Several stakeholders suggested that a termination process should be considered if the successful bidder is significantly delayed or fails.

4.6 Payment mechanism

In the ECP, we set out the key principles on how the payment mechanism, which allows the CATO to recover their costs once the solution is delivered, will work:

- **TRS approach:** The ECP[51] proposes the use of a TRS model, drawing from its successful implementation in comparable markets such OFTOs and PPPs and adoption in the water sector through Direct Procurement for Customers (“DPC”). The TRS model promotes participation from a broad range of companies and ensures direct comparability among bids, protecting consumers throughout the transmission licence period. With the TRS model, bidders propose the regular payment they require to provide the service, which is determined based on their costs.
- **Indexation:** In line with the payment structures for OFTOs and PPPs, which are typically linked to inflation, the ECP recommends linking the early competition TRS to inflation within certain parameters[52]. Indexation is vital to ensure the bidder has matching revenues in each period to cover their project costs. The ECP suggests adopting the Consumer Price Index including owner occupiers’ housing costs (“CPIH”) as the index for the TRS, mirroring its current adoption as the primary measure of inflation for household costs. Considering the alignment of costs and revenues, the ECP suggests that partial indexation could serve as a 'natural hedge', negating the need for additional financial instruments and associated costs.
- **Availability incentives:** The ECP[53] proposes incorporating availability incentives into the early competition revenue model, drawing parallels with the existing OFTO and PPP structures. These incentives motivate the solution provider to ensure solution availability, utilising fixed payment adjustments in cases of unavailability. Feedback from stakeholders supports this recommendation, and due to resemblances between the offshore and early competition regimes, the ECP suggests that the early competition availability incentive mechanism should mirror the current offshore availability regime, subject to necessary adaptations.

Below we set out proposed adaptations to the OFTO availability regime.

[51] ECP, Section 4.1.1, p.28
[52] ECP, Section 4.1.5, p.33
[53] ECP, Section 5.3.3, p.93

Key Assumptions

The payment mechanism performance incentives are based on the following assumptions:

1. **The key indicator of the performance in the availability of the system that could be measured -** A network solution will have a baseline maximum transmission system availability, measured in MVAh / MWh / MVArh or such other unit as applicable to the solution, and calculated as the Normal Capability Limit multiplied by hours in a year.

2. **The Successful Bidder would be required to install suitable equipment on their asset to allow communication with the control room.**

Measuring availability

Availability information would be recorded by the control room from submissions by the CATO regarding their asset's Operational Capability Limit ("OCL") and Service Capability Schedule ("SCS"). The approach to the way records are maintained by the control room may need to be reviewed in light of this obligation. We will also take a view on the current processes that incumbent TOs are subject to.

Recommendation

Our preferred position for service reduction measurement is to utilise control room recordings to confirm maximum capability and output sustainability.

Any recorded unavailability, whether from equipment, testing or OCL/SCS submissions, would include records of the reason for the reduction in service to determine whether the event was a transmission or non-transmission (as appropriate) service reduction as per the CATO licence. The licence will set out reasons for an outage that would not be considered a penalised energy outage (e.g. if it was caused by the actions of another TO).

Service reduction adjustments

We are proposing to apply the OFTO mechanism for linking availability to revenue, subject to necessary adaptation.

- In OFTOs, the target availability for any solution is 98%. While we propose setting a specific target availability for each tender (see Section 5.5), 98% would provide an initial reference point from which to develop the tender specific target.

Recommendation

Maintain the basic OFTOs principles, with adjustments for the annual measurement, exclusion of the major outage deduction cap, and special provisions for the last operating year.

- Any 1% deviation in availability from the target value leads to 2.5% tender revenue stream adjustment (up or down). In the payment mechanism this 2.5x scale factor is defined as a result of division of Revenue Impact Cap by Penalty Impact Cap (defined below).
- In each particular operating year, except the last one, the revenue could not be adjusted down by more than 10% (corresponding to 94% availability where the target is 98%). These caps are defined in the payment mechanism as a Revenue Impact Cap and a Penalty Impact Cap correspondingly. If the underperformance exceeds this threshold, the penalties for this underperformance are deferred and carried forward to next operating years until they are redeemed within the 10% revenue adjustment cap. This rolled forward underperformance is referred throughout the payment mechanism as a Carried Forward Unavailability.
- If the availability falls more than 20 percentage points (corresponding to 78% availability where the target is 98%), no further financial deductions are applied (even carried forward) but service points would continue to accrue that could lead to an event of default. The total cap, below 100%, is referred in the payment mechanism as a Total Unavailability Cap.

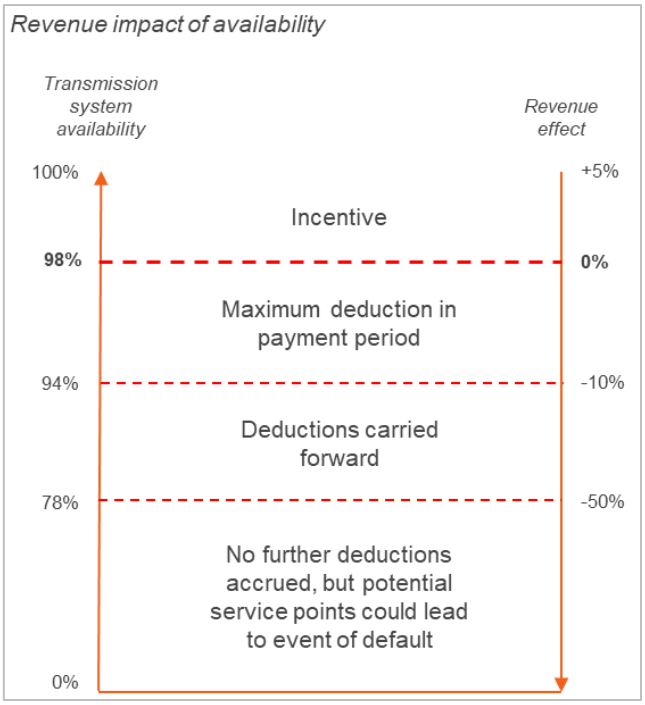


Figure 7: Revenue impact of availability

- In the last operating year, the revenue could be decreased by up to 50% of the tender revenue stream. The same deduction (up to 50% of the annual tender revenue stream) could be applied to the last regular payment and, in case of a negative value – to the proposed residual value payment (see Section 4.4) as well. This is required to redeem all the deferred penalties that could arise previously.
- The OFTO TR9 licence payment mechanism introduces a cap factor that means that after one major outage, unavailability is no longer accrued for the duration of the repayment period. We are not seeking to apply this mechanism to early competition due to the underlying differences between offshore and onshore assets. The impact of unavailability on the overall system is material. Long disruptions that require significant time for recovery should not be permissible.

The revenue adjustments are normalised to consider the potential difference in number of days in the operating year when the performance was measured and when the adjustments are applied.

Stakeholder feedback

Stakeholders were generally supportive of the proposed payment mechanism and the availability regime. Some stakeholders stated that they are comfortable with the proposed availability regime as it replicates the OFTO regime. Other stakeholders noted the benefits of having a cap to the downside risk, and that, if penalties apply, sufficient incentives should also be applied.

First and last period adjustments

The performance is measured for an annual period that could slightly differ from 365/366 days for the first and the last year (the “Operating Year”) should the revenue period start or end partway through the Operating Year, and an adjustment based on the current Operating Year performance is applied for the next Operating Year.

The Operating Year will be defined based on the commissioning date whereas the annual period will be pre-defined at licence award and monitored consistently between different CATOs.

During the first Operating Year no revenue stream adjustments are applied given the absence of data from the previous year. The performance is deemed to be equal to target (98%).

Performance during the last Operating Year is considered in the residual value payment adjustment using the same principles that are applied for TRS adjustments.

Seasonality adjustments

The payment mechanism also uses Seasonality Factors – a method used to incentivise planned outages during periods with fewer network constraints. We are proposing changes to the seasonality adjustments approach compared to the one used in OFTOs – designed to incentivise management of the asset to ensure peak availability at times of high onshore network demand, rather than fit the needs of a single offshore wind generator.

The proposed mechanism involves applying a monthly weighting Seasonality Factor ("SFM") to encourage outages to be taken when they would have the least impact on the system – currently envisaged to be from April to September (SFM<1) and discouraged from October to March (SFM>1) but this will need to be kept under review. The Seasonality Factor is calculated independently for each transmission service reduction event, either as the monthly SFM for events within a single calendar month or as a weighted average of the corresponding SFMs for events spanning multiple months.

The coefficients and the Seasonality Factor monthly table may need to be modified as needed during the revenue period, fine-tuning the planned outage schedule. Such changes would need to be limited in terms of their frequency and following appropriate notice to the CATO to minimise any financial impact.

4.6.1 Other incentives

This section discusses three additional incentives outlined in the ECP, apart from the availability incentive previously explored. These incentives include stakeholder engagement, environmental considerations, and timely new connections.

Recommendation

Stakeholder engagement, environmental considerations, and timely new connections will be included as part of the incentives package.

In the review of the incentives outlined in the ECP, the core principles have not only been maintained but also further developed to ensure a more comprehensive and effective approach.

During the ECP engagement, the incentives were assessed, and it was agreed that an availability incentive would be the main operational incentive with the largest potential impact on the TRS, in addition to the environmental, timely new connections, and stakeholder engagement incentives.

The two incentives that have a financial element, namely environmental and timely new connections incentives, are set to replicate those applied in RIIO-2.

Following industry feedback during the ECP, an innovation gain share mechanism was considered challenging in the context of the wider model proposals, and therefore, it was discounted as an incentive option for early competition. Additionally, it was agreed that the full suite of RIIO-2 incentives (e.g., asset health) was not needed for early competition due to the inherent differences between the RIIO-2 arrangements and the early competition model proposals.

4.6.2 Environmental Incentive

Reputational

This environmental incentive is based on reputational impact and aligns with the RIIO-2 approach. The obligation is for bidders to provide an Environmental Action Plan as part of the tender process and Annual Environmental Report. The report will be submitted from licence award until decommissioning.

We expect bidders to set out their environmental plans and commitments (e.g., in relation to losses, carbon footprint, energy efficiency, biodiversity, etc.) in their Environmental Action Plan and then report progress against these on an annual basis.

Financial

As per the ECP, there is an obligation to minimise leakage of relevant gases (e.g., SF6). This can mostly replicate the regulatory arrangements (RIIO-2) once incentive parameters have been set for early competition, e.g., in respect of a baseline and targets.

The current mechanism for the TOs is based on a baseline from 2013-2020 which the CATOs will not have. A potential solution is to create a baseline based on what "good" performance means with respect to gas leakage now, and then set incentives to promote or exceed the required performance.

Following Ofgem's consultation on frameworks for FSNR, there may be further incentives around environmental performance. Therefore, this will need further review from Ofgem on what future incentives they might want and how they might calculate it. This incentive will apply from licence award.

4.6.3 Timely New Connections Incentive

Financial

The timely new connections incentive would replicate the RIIO-2 incentive. As per the ECP, a discretionary penalty of up to 0.5% of annual base revenues for defined process failures on the facilitation of new connections, on a comparable basis to incumbent TOs. These relevant process failures would be linked to the expected obligations under licence and code in relation to making competent connection offers in designated timescales.

As per the decision on additional works, new connections will be dealt with accordingly, depending on when they are submitted to the CATO and the process for this is covered in the additional works (section 4.8).

4.6.4 Stakeholder Engagement Incentive

Reputational

The CATO will be obligated by the electricity transmission licence to publish a stakeholder engagement report within three months of the conclusion of the preliminary works stage.

In this report, the CATO will set out best practices and lessons learned in respect of the preliminary works stage. This information could then be considered in future tender processes and will support the identification of potential deficiencies in the stakeholder engagement process.

We suggest that the stakeholder engagement report contains content on community engagement best practice and stakeholder lessons learned for example. The aim of the report is to:

- Provide feedback to the Procurement Body to improve internal processes and ensure information is provided to the Procurement Body in a timely fashion to better support stakeholder engagement.
- Include experience and lessons learnt by the CATO that could improve stakeholder experience for future CATOs.

4.6.5 Incentives for delivery

As a part of additional analysis carried out following the ECP, options for implementation of early delivery incentives / late delivery penalties have been considered, examining precedents for ASTI.[54]

A review of the early delivery incentive has led to the conclusion that it is not anticipated to generally be required for projects competed under early competition for two main reasons:

- The EISD for these projects will be determined by the outcome of the CSNP and delivering earlier than this would not provide additional consumer value. In contrast, ASTI projects have significant consumer benefits when delivered as early as possible, justifying the need for an incentive.

[54] Ofgem, "Decision on accelerating onshore electricity transmission investment" (15 December 2022).

- CATOs will begin receiving their TRS once the project is commissioned, which already creates a financial incentive to deliver as early as possible. Therefore, adding an additional early delivery incentive is deemed unnecessary.

Notwithstanding the above, as part of the pre-tender stage for each project the ESO and Ofgem should still consider if the specifics of the project warrant an early delivery incentive. If it would create additional value for consumers then it could be calculated as follows:

- The economic assessment team will review the projects that are marked as critical from the project list and if an early delivery of a solution triggers any customer benefits or constraint costs savings, this will influence the project prioritisation process and identify required date for delivery.
- During pre-tender, the ESO will consider the required date for delivery against the feasibility of achieving that date.
- During the tender stage, bidders will be requested to demonstrate their proposals for achieving the required EISD date, and if it is beneficial to consumers, any mechanism they may have in place for achieving early delivery. A more robust submission giving greater confidence of delivery in time will be considered as part of the scoring, however specific scoring for earlier delivery would not necessarily be considered.
- During the delivery stage, if they are able to deliver the asset earlier, then their revenue period will start earlier (and end earlier too).

In terms of penalties for late delivery, we have reviewed the content in the ECP and determined this is not required. The CATO not receiving any TRS until the project is commissioned is a sufficient incentive as it would continue to incur debt costs with no revenue which reduce the potential returns for shareholders. As an example, a high level assessment of a £500M capex project with a WACC of 6.4% would have an annual TRS loss of around £50M, or £137,000 per day. We consider this to be sufficient incentive to deliver on time without the need for additional measures.

4.6.6 Equity gain share

The ECP[55] considers the basis on which equity is invested in early competition projects. These include the point at which the cost of equity is fixed, the point from which equity sales are permitted, and whether any gain sharing with consumers applies on the sale of equity.

Whereas the ECP set out a preferred position on fixing the cost of equity and when equity sales are permitted (which remain unchanged), the ECP noted for gain sharing on equity sales that further consideration was required.

The ECP set out the pros and cons of requiring investors to share gains on an equity sale. It suggests that whilst it would appear that equity sharing would reduce the appearance of profiteering, such a requirement could result in bidders requiring a higher cost of equity to offset the gain share and may not provide value for money for consumers.

With bidders expected to set their required equity return in their bids and only permitted to sell their equity post completion it is to be expected that any sale will result in an equity gain to reflect the changing risk profile of the project (see Figure 8 below, reproduced from the ECP).

[55] Section 4.2.1, p.36

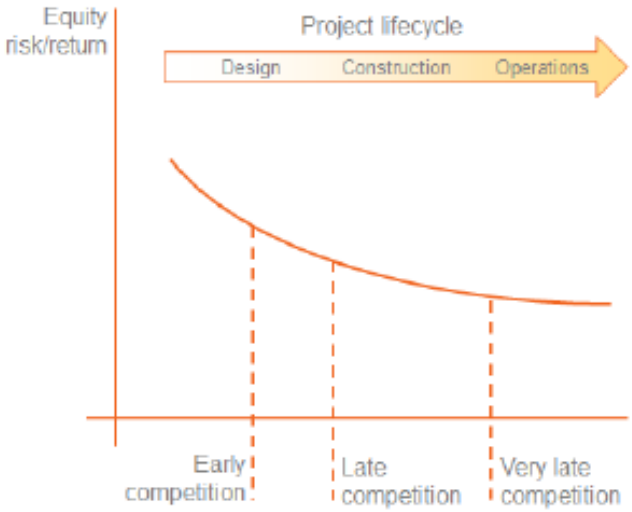


Figure 8: Illustrative diagram of risk through the project lifecycle and various points of tender

Bidders, under competitive pressure, will set a return requirement that blends the project risks through design, construction and operation. If the bidder chooses to sell the equity (recycle its capital for future projects) rather than continue to own the project through the relatively low risk operations phase, it will see a profit reflective of how successfully the project has reduced the risk.

Applying a gain share to any such sale is likely to encourage bidders not to sell, given they would be required to share the proceeds, but to hold projects for their entire lifecycle and retain all the benefits, reducing the amount of capital being freed for reinvestment. In addition, this approach will fit with the investment approach of some investors, but not others (for example infrastructure funds that specialise in taking development risk where the operating period does not provide the returns required by their investors), limiting the market.

To maintain as much investor interest as possible, we propose to not require an equity gain share.

4.7 Operational obligations under the codes

In the ECP, we said that a set of facilitative industry code changes will likely be needed in respect of the ESO and/or incumbent (and future) TOs. These would set out any obligations and/or processes in respect of periodically identifying and facilitating early competitions e.g. in respect of data exchange to support a tender process.

It was stated that code changes would follow the appropriate formal code change processes. The ECP however did recognise that code modifications would need to follow enabling legislation in the shape of the Energy Bill and subsequent licence changes.

The ECP further stated that further industry code changes would also need to be raised and concluded. For example, the rights and obligations under codes of successful network solutions and non-network solutions. Another example is that the commissioning process for both network and non-network solutions should be aligned with the existing industry codes.

It was recommended that successful network solutions are provided with an Electricity Transmission Licence and successful non-network solutions would enter into a commercial contract with a Contract Counterparty. Therefore, the approach that was employed was to ensure that network and non-network solutions were enabled with minimal changes to the existing codes.

As set out in section 2 non-network solutions will be procured through Network Services Procurement or equivalent appropriate processes. Therefore, this section only sets out code changes in respect of network solutions to be delivered via early competition arrangements.

4.7.1 Making code changes

A detailed code scoping and identification phase was undertaken from Autumn 2021 through to Summer 2022. This identified the code changes required to enable early competition.

During the implementation phase we have continued to apply theories outlined above in identifying and progressing the code modifications required. The modifications that we are progressing employ minimal changes to the codes while enabling network solutions to participate in the provision of transmission solutions.

The code changes we are currently progressing have been developed following the principle that network solutions will be awarded a Transmission Licence. The majority of the changes have been introducing the concept of CATO into the respective codes. Furthermore, specific modifications have only been progressed when the current provisions are considered not to work for CATOs. An example of this is the connection process to connect a CATO to a pre-existing TO. The STC does not currently contain a proven process for connecting one Transmission Licensee to another, so we developed one through the STC.

4.7.2 Current status of code changes

Table 2 below summarises the status of code changes as of January 2024:[56]

Code	Modification Reference	Purpose	Status
CUSC	CMP403	Introducing CATOs and Transmission Service Providers (Section 14 and 11). Clarifies that CATOs will be funded via relevant charging mechanisms (TNUoS & BSUoS)	Direct to Code Admin Consultation (CAC)
CUSC	CMP404	Introducing CATOs and Transmission Service Providers (Section 14 and 11)	Direct to Code Admin Consultation
Grid Code	GC0159	Introducing CATO as category of TO	At Workgroup stage, due to go to Panel in February 2024.
STC	CM086 and PM0134	Introduce CATO term and concept/role into STC and STCPs	At Code Admin Consultation (CAC) stage.
STC	CM087 and PM0136	Connection process for first connection of CATO to National Electricity Transmission System (“NETS”)	At Code Admin Consultation (CAC) stage.
SQSS	GSR031	Introduce CATO term and concept/role into the SQSS	At Workgroup stage, due to go to Panel in February 2024.

Table 2. Summary of code modifications required to enable early competition.

Details on each of the code changes identified in the table is provided below:

The Connection and Use of System Code (CUSC) – Mods CMP403 and CMP404

The CUSC is the contractual framework for connecting to and using the NETS. It will provide the framework for Users connecting to CATO Network Solutions that are procured through early competition.

The CUSC code modifications the ESO are currently progressing through the code modification process focuses on two areas. Firstly, enabling CATO as a category of TO, this ensures that CUSC parties are aware that the process for them connecting to the NETs via a CATO will be the same that they would follow if they were connecting via any other TO. These insertions are all contained within the Interpretations and Definitions section (Section 11).

[56] Balancing Settlement Code: we have also consulted periodically with Elexon (BSC code administrator) throughout the development of the Network Competition modifications to ensure they are aware of the nature of the modifications we are making. Our current understanding is that there will be minimal (if any) changes. We will review and determine what if any changes are needed with Elexon when the modifications detailed in this paper are clear.

Secondly, to provide clarity to all parties that CATOs (and any non-network solutions delivered through Network Services Procurement or equivalent) will be funded via relevant charging mechanisms (TNUoS & BSUoS) (Section 14).

The Grid Code – Mod GC0159

The Grid Code details the technical requirements for connecting to and using the NETS. Any industry representative participating in the development of the NETs must comply with the provisions of the Grid Code, including transmission licensees (current TOs and CATOs) and Users of the network (such as generators and prospective non-network solutions).

The Grid Code modifications that we are progressing (see status in table 1) are focussed upon facilitating the introduction of CATOs with the minimal changes necessary to the Grid Code. All modifications have been proposed on the assertion that CATOs will be granted a Transmission Licence and will be categorised as an Onshore Transmission Owner. The totality of changes being progressed simply ensure that CATOs are referenced as a full category of Onshore Transmission Owner, with all the rights and obligations that confers.

System Operator Transmission Owner Code ("STC") – Mod CM086 and PM0134

The STC defines the relationship between the TOs and the system operator, setting out the roles, responsibilities, obligations, and rights of these parties.

The first STC modification (CM086) introduces the concept of CATO throughout the STC, and accordingly it establishes how CATOs as Onshore Transmission Owners will accede to the STC as STC parties and interact with other STC parties. By and large CATOs will broadly be subject to the same obligations, frameworks, and rights as other Onshore Transmission Owners.

As such, most of the modifications to the STC involve ensuring that CATOs are recognised as a form of Onshore Transmission Owner, led by the inclusion of the CATO definition in Section J, Interpretations & Definitions, as shown below:

"Competitively Appointed Transmission Owner (CATO)"	A person who is the holder of a transmission licence (as defined in Section 6(1)b of the Electricity Act 1989) to own and operate an onshore transmission system that has been granted on the basis of competitive tendering undertaken pursuant to Section C of the Electricity Act 1989.

For completeness CATO is added to the definition "Onshore Transmission Owner" alongside the three existing "Onshore Transmission Owners" and as an STC "Party Category". The STC Party representation rights also needed to be established for CATOs. The model we have followed in this respect is to afford CATOs the same rights that OFTOs currently have.

Apart from these changes the accommodations for CATOs in the STC are quite limited and specific i.e. the Onshore Transmission Owner obligations will largely apply to CATOs. Further details on this is available through the Code Modification.[57]

The modification PM0134 introduced the concept of a CATO to the STC Procedures (STCPs) that sit alongside the STC. This is required to enable onshore network competition.

STC – Mod CM087 and PM0136

This STC modification is being developed to provide a clear, coordinated process for all the STC parties involved in the initial connection of the CATO to a pre-existing Transmission Owner prior to commissioning of the CATO's assets. The involved parties are the CATO, a single or multiple TOs and the ESO/ESO.

Whereas the connection process to be followed in the connection of a User, such as a generator is clear and well established, no such clear, detailed, proven process is covered in the STC to support the connection of one transmission licensee to another. During our engagement with TOs and OFTOs the majority stated that they felt it was perverse to create CATOs as Onshore Transmission Licensees only to treat them as Users when it comes to their principal interaction in the STC, namely their

[57] CM086: Introducing Competitively Appointed Transmission Owners & Transmission Service Providers | ESO

connection to the network. CATOs will be full Transmission Licensees and parties to the STC. The feedback that we have received almost exclusively supports treating them as equal STC parties, supported and instructed by the provisions of the STC. Bidders will need to see a reliable, prescriptive process they can have confidence in. Pre-existing TOs will need a clear prescriptive process to be in place that ensures CATOs are informed and fully conversant with their rights, obligations and deliverables. ESO need to be a full contributing party to the process to ensure that operability and compliance requirements are met.

Therefore, ESO proposed, and the CM087 Work Group supported, the proposal that a bespoke CATO-TO connection process be developed, underpinned by extended and strengthened Planning and Coordination provisions of the STC. It should utilise the status of the CATO, pre-existing TOs and the ESO as STC Parties and the Duty to Cooperate that is an obligation of that status. We have used the Investment Planning principles of the STC to inform the process that we have developed.

The modification PM0136 provides the amendments required to the STCPs to introduce a connections process to facilitate CATOs connecting to the NETS.

Stakeholder feedback

Stakeholders were supportive of the principle that the connection of CATOs to pre-existing TOs should recognise the respective party's status as transmission licensees (STC parties) and be guided by an overarching, clear, prescriptive, process.

Security and Quality of Supply Standard ("SQSS") – Mod GSR031

The National Electricity Transmission System (NETS) SQSS sets out the criteria and methodology for network planning and operating the NETS. Transmission licensees, both onshore and offshore, are required by their licences to comply with the SQSS.

The changes we are currently progressing through GSR031 modification introduces the concept of CATOs to the SQSS to allow onshore electric early competition to be implemented effectively, ensuring obligations, technical requirements and safety standards are applied to CATOs connecting to the NETs.

The modification seeks to introduce the CATO concept into the SQSS as an additional form of onshore transmission licensee. This is achieved through the definition of CATO and the addition of CATO alongside the list of existing TOs in the definition of "Onshore Transmission Licensee". Several further modifications have also been necessary to ensure the requirements for CATOs are consistent with transmission area in which they are located.

4.8 Additional Works

In the ECP, we set out that CATOs would be responsible for all new relevant capital investment in their network.[58] The exception would be where the criteria for competition on that new investment is met where a competitive process would be run. The ECP set out that further thought would be needed as part of the licence drafting in respect of how that obligation is enacted and on what basis additional allowed revenue would be set.

Recommendation

The CATO is obligated to consider proposals for additional works. The CATO will need to determine whether undertaking the works would likely lead to a delay of commissioning and therefore plan the additional works, either pre or post commissioning, accordingly.

The OFTO regime was noted as likely to be suitable although the 20% cap would need to be disapplied as there is a greater likelihood of exceeding the cap when facilitating connections onshore, especially for more integrated network solutions.

The ECP recognised that an uncapped obligation could be a concern in relation to future financing and that further consideration would be required in this area.

[58] ECP, Section 5.3.3, p.93

During the implementation phase we have further developed the thinking around:

- Design adjustment process for changes incorporated between award and commissioning; and
- New investment pricing and financing.
- These are set out in more detail below.

Key Assumptions

Additional works are driven by the existing connection and network planning processes. If these processes change in future these recommendations should be reviewed.

We assume that, by the time additional works are required for a CATO project, there will be capacity to compete all new, separable, and large additional works. Should Ofgem envisage a future regime where this is not the case, these recommendations should be reviewed.

4.8.1 Design adjustment process post-award and pre-commissioning

As per the ECP the current proposal is that post-award of the licence the CATO will be obligated to support the development of the wider network in line with their obligations as a TO under the STC. During the EC-I process there were three drivers of additional work identified:

- **User connections –** Provide offers to design, build and operate user connections to the CATO system – obligation borne out of TO licence (Standard Licence Condition D4A) with detail in STC Section D (Part 2).
- **Wider network user connection impact –** Modify CATO asset as a result of user connection elsewhere on the NETS – CATO considered an Affected Transmission Owner Construction Offer to user under STCP 18.1.
- **Transmission Investment Plan –** Modify CATO asset to support development of the wider network following changes in another TO's Transmission Investment Plan.

In relation to changing designs following the award of the CATO licence and prior to the commissioning of the asset several options were considered:

- **No changes to the design allowed until the asset is commissioned –** this option was rejected on the grounds that it was inconsistent with TO obligations and because it may lead to sub-optimal outcomes for consumers and connecting parties.
- **Changes to the design mandatory at any point ahead of commissioning –** this option was rejected on the grounds that it would likely lead to delays to the commissioning of the asset and may lead to significant additional pre-liminary works costs for the CATO. For example, the CATO may be required to resubmit a planning and consenting application.
- **Changes to the design are dependent on the timing and scope of the change request** – this option was selected as the preferred option as it balanced the potential for creating delay against optimising value for consumers. Further rationale is set out below.
- **Changes forecasted by ESO and anticipatory works included within the scope –** the consideration of anticipatory works would be best placed as part of a holistic network planning process rather than considered in isolation as part of a single need tender event. Therefore, a separate process outside of the ESO's tCSNP/CSNP processes is not recommended in this instance.

For all projects there will be a point at which the scope of the design changes caused by additional works may result in delays to solution delivery due to additional design, consenting and construction time. Delayed delivery of the asset may lead to additional constraint costs for consumers.

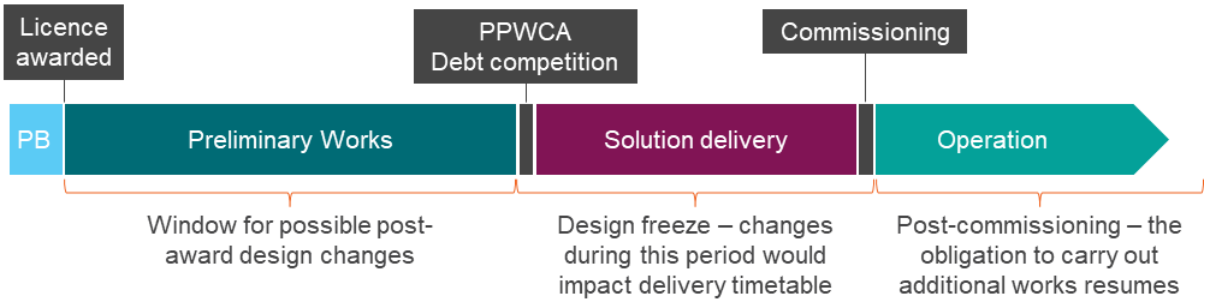


Figure 9: Design adjustment process

The recommended process is as follows and is set out in Figure 8:

1. Once a licence has been awarded the CATO will commence preliminary works phase. During the preliminary works phase the CATO is required to consider post-award changes.
2. The CATO will be required to determine, on a case-by-case basis, whether the solution can be modified to accommodate connection applications or other drivers of additional works.
3. If the CATO considers that the additional works would compromise or delay the delivery of the original solution, then it must justify this to Ofgem in a written format within a prescribed timeframe.
4. If Ofgem 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.
5. Costs associated with changes to the design (and associated costs involved during the preliminary works stage) will be included within the PPWCA repricing mechanism.
6. Once the asset has been constructed and commissioned, the obligation to carry out additional work resumes.

Stakeholder feedback

Stakeholders were broadly supportive of this approach and agreed with deciding on a case-by-case basis and limiting changes during the construction phase.

4.8.2 New investment pricing and funding

The position set out in the ECP was that the CATO would not be subject to the 20% cap that the OFTO regime was set under – the cap in the OFTO regime was set to ensure the requirement was financeable and OFTOs not exposed to uncapped liabilities.

Recommendation

The pricing of the additional works will be based on either unit costs from the bid or set through a design and build competition. The funding options available to the CATO are based on a series of thresholds to ensure financing is not adversely impacted.

The OFTO regime also does not set out a mechanism by which the cost of additional works or new connections prices are determined.

During the implementation stage a preferred position for both pricing and funding arrangements to mitigate the financing challenge of removal of the 20% cap were developed.

4.8.3 Pricing

The pricing of the additional works could be set through several different mechanisms:

- **Determination –** They could be set through a regulatory determination or equivalent framework. The CATO could submit costs to Ofgem and a final decision made. This mechanism would not have any competitive pressure put on costs and may be time consuming and so was rejected.

- **Central cost data base –** the ESO could hold a series of unit costs from successful tenders and build up its own cost data base to set allowances for CATOs. This option was rejected on the basis that it would require a significant amount of effort, may not reflect recent market prices and may have gaps.
- **CATO unit costs –** the unit costs (underlying costs) bid by the CATO could be used to build up an estimate of the additional works plus a level of indexation. This option has the benefit of being reflective of competitively set costs and set by the bidder. The limit of this option is where the additional works involves capital works that were not part of the original bid. This option is part of the preferred recommendation.

  A sub-option was explored where bidders could bid a range of unit costs not related to their project to ensure a wider database was available. However, this sub-option was rejected as including it within the tender process would be complex.
- **Design and build tenders** – the CATO could run a design and build tender under the supervision of Ofgem or the ESO and that fixed price bid would be used to determine the pricing of the additional works. The CATO would then be incentivised to manage the construction process efficiently as it would only be provided with that allowance and any underspend could be shared between the CATO and design and build tender. The CATO would need to set out the technical specification, outline design and design and build contract and tender arrangements. Each of which will need to be reviewed and approved by Ofgem or the ESO. The oversight of the tender ensures that it is competitive, and the price paid by consumers reflects market prices and are efficient. This option is combined with the unit cost for the preferred approach to pricing.

The preferred approach for pricing of additional works is to use unit costs plus indexation where the additional works are comparable to the bid design. But where the additional works involve different technologies, materials or processes then a design and build tender can be run to set the price. The CATO can also make a request to Ofgem that a design and build tender is run if the unit costs do not reflect market prices due to factors which are not reflected in the index e.g. supply chain issues.

4.8.4 Funding

The funding arrangements for additional works aim to address the financing challenges faced by the CATO in having an uncapped liability for additional works. Lenders will not be willing to lend to projects where the requirements under the commercial arrangements could materially impact the firmness of cashflows for maintaining debt servicing. Equally investors with whom we engaged welcomed the opportunity for further investment but were uncomfortable with an obligation to further invest capital and noted that this would be problematic with investment committees.

We expect that bidders will be able to determine a ‘technical’ limit to the liability during the tender stage. There is a limit to the scale of additional works that the CATO would be responsible for delivering before that works meet the criteria for competition and would constitute a separate project.

The preferred option for early competition is to introduce a series of thresholds to the cumulative level of investment that the CATO is required to undertake through additional works. Each threshold provides the CATO with a range of funding options to enable them to optimally determine their financing structures.

As Figure 10 shows, the cumulative level of investment up to 20% of the original capex value (not indexed) requires the CATO to finance it. CATOs will need to ensure that they can access or draw on an additional 20% of finance relative to the original project capex. Although this will not be formally tested as part of the tender process, both PQ and ITT assessments include broader tests of financial standing and finance raising experience.

This obligation is equivalent to that placed on OFTOs. The CATO will get a TRS uplift by using the financial model to calculate the adjustment based on the bid cost of equity. The CATO will be able to run a debt competition, again overseen by the procurement body for setting the cost of debt.

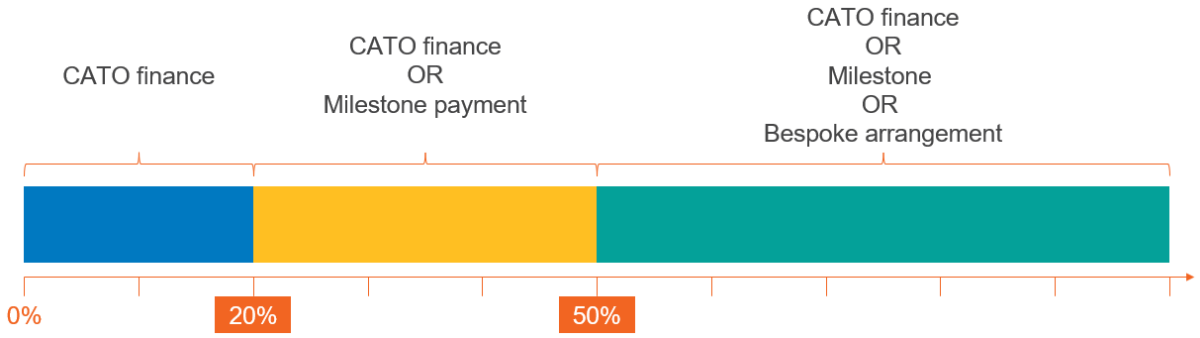


Figure 10: Cumulative value of additional works / % of original project capex

For additional works which cumulatively are greater than 20% of the original capex value the CATO has the option to either finance it themselves based on the process set out above or it can select a pass-through payment. Under this option the CATO will set the price for the works (based on either of the methods set out above) and then receive that revenue ahead of construction. The CATO will then not need to raise any finance and will not receive any adjustment to the TRS for the capital works. There may need to be an adjustment to the TRS to reflect adjustments to operational costs and that will need to be determined on a case-by-case basis between the CATO and Ofgem.

Stakeholder feedback

Stakeholders were broadly very supportive of the approach we are taking and understood the rationale for removing the cap on obligations. They thought that the options proposed were sensible and mitigated many of the challenges. A couple of stakeholders noted that the success of the proposal would depend on the legal drafting and how it is managed by Ofgem.

For additional works which cumulatively are greater than 50% of the original capex value the CATO has three options. Either it can opt to finance the works itself, receive an upfront payment or propose a bespoke funding arrangement with Ofgem. The bespoke arrangement could be the equivalent to a 'side' Regulated Asset Base ("RAB") funding arrangement, a separate revenue stream or an entirely different model. The arrangement would be negotiated with Ofgem on a case-by-case basis to reflect the risk profile of the additional works. We recommend that Ofgem produces guidelines that would inform CATOs of the process and possible options. These may depend on the nature of the work involved and costs involved.

Recommendation

We recommend that Ofgem produces guidelines that would inform CATOs of the process and possible options. These may depend on the nature of the work involved and costs involved.

5 End-to-end process

Building on the proposed end-to-end early competition structure, this section presents the developments made to the details of each stage of the early competition process. The key areas covered are:

- **Summary of the project timeline –** Expanding on the ECP's high-level timings,[59] this section presents a bottom-up breakdown of timings required to undertake all identified activities under each stage for the first early competition tender.
- **TO interfaces –** This section elaborates on the process to be followed to interact with the TO as part of the pre-tender stage.
- **Pre-tender activities –** This section builds upon the ECP's considerations on the pre-tender activities,[60] specifically focusing on steps and information required to launch an Early Competition tender process.
- **Tender activities –** Expanding on the ECP's tender structure and guiding principles for each tender stage,[61] this section details the proposed evaluation criteria and scoring to select the Preferred Bidder.
- **Post tender award process –** This section builds upon the ECP's post tender award activities,[62] specifically outlining the PPWCA process and governance to fix the TRS payment amounts.
- **Planning and consenting –** Drawing on the ECP's recommendation,[63] this section explores potential options of activities to be undertaken pre-tender, tender and post-tender by the Procurement Body and bidders in relation to planning and consenting process.
- **Commissioning and compliance –** We discuss the need for CATO and TOs to collaboratively develop an interface design that is best value for consumers while safeguarding them from undue costs.

5.1 Summary project timeline

In the ECP, we said that the duration of the early competition tender process from when a project is selected as being suitable for early competition to the end of the revenue period is a multi-year process. Based on the illustrative timescales in Figure 18 of the ECP,[64] it was expected that these activities leading up to licence award may take around 3 years.

The ECP provided a high-level overview of the expected tender process activities. During the implementation phase we further developed thinking around:

- **Tender stages –** Based on the network planning developments discussed in section 2.1, we have revised the tender structure and simplified the proposed process in the ECP down to two stages – PQ and a single ITT.
- **Detailed activities under each tender stage –** To ensure a well-structured and efficient process, we identified steps required at each stage (such as CBA assessment, finalisation of tender documentation and Ofgem approval at pre-tender stage), including activities being undertaken by the Procurement Body, bidders, Ofgem, TOs and other stakeholders that could impact the tender timescales. By defining these activities, we aimed to create a clear roadmap that would guide us throughout the entire tender process.
- **Tender activity timings** – For the PQ and ITT stages, we established a detailed timeline of activities for the bid submissions and the subsequent evaluation processes. To ensure that the timescales were sufficient for all parties, we undertook a number of timeline revisions, stress

[59] ECP, Section 5.1, p.61
[60] ECP, Section 5.2.1, p.65
[61] ECP, Section 5.2, p.65
[62] ECP, Section 5.3, p.87
[63] ECP, Section 4.4, p.57
[64] ECP, Figure 18, p.62

testing activities and consulting on the critical path with the market. We also benchmarked our timescales against published projects with similar tender processes.

- **Post-tender activities –** Detailed activities under the Preferred Bidder stage to reach a successful licence award, and steps to be undertaken by the CATO as part of post-tender stage up to Stage Gate 5 submission at the operations stage of the project.

Based on this, we were able to develop a detailed bottom-up time estimate for the tender process. Timescales will be further refined and finalised as part of pre-tender activities. The timescales set out below are assumed for the first tender round, and it is expected that over time there may be further efficiencies realised. Clear input from Ofgem on their expected timescales will be required to finalise the overall duration of the tender process. Ofgem will be expected to approve Stage Gate submissions that are required for launching the tender process and the Preferred Bidder announced in a timely manner.

Below we set out our proposed updates to the ECP position and the key assumptions made at this stage for the purpose of further developing or changing the ECP position.

5.1.1 Development of the ECP position

Refined timescales at each tender stage

The timing for tender activities has been developed based on a detailed breakdown of each activity, with specific cycle times and work/wait times for the involved participants and stakeholders. The process aims to ensure efficiency and coordination during the tender stages to progress towards the final tendering phase effectively.

Recommendation

Based on the detailed breakdown of tender activities up to the Preferred Bidder award, the early competition is expected to take around 3 years.

In developing the timescales, we considered examples of 'first of a kind' procurement processes in UK infrastructure. These included the Transitional Regime for Offshore Transmission Licences ("OFTO TR1-3"), example project timings from LOTI within the electricity industry, the design build, finance operate and maintain ("DBFOM") model for the Silvertown Tunnel transport project and the water sector HARP[65] project timings in the wider context of infrastructure build. These case studies were considered likely to offer valuable insights into the tender processes and timelines for different projects and provide valuable data for developing robust and efficient tender timings for early competition.

Figure 11 below presents a high-level breakdown of tender timescales based on implementation stage developments compared with initial ECP timing estimates.

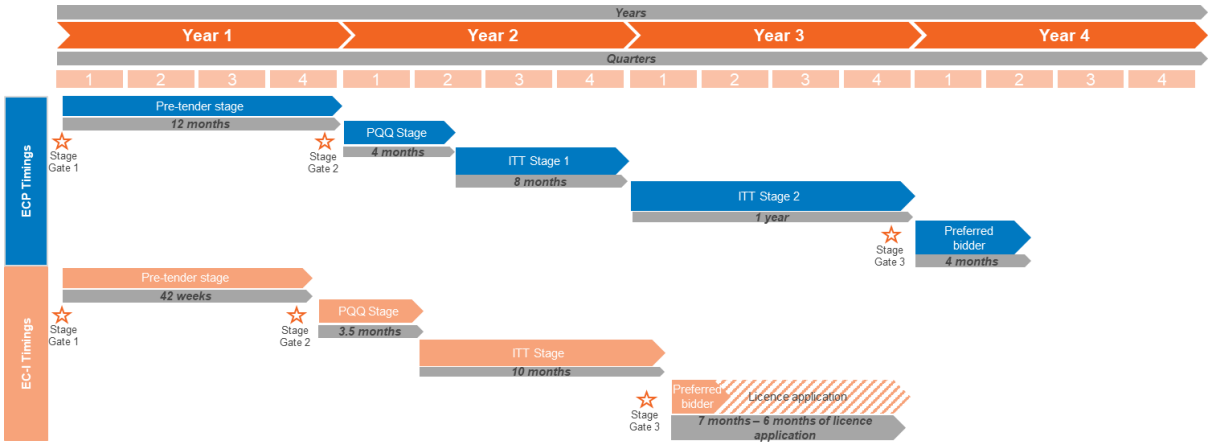


Figure 11: Tender timescales

[65] Haweswater Aqueduct Resilience Programme (HARP) is a major infrastructure project in the water sector to deliver c.50km of tunnelled water pipeline. It will be delivered under Ofwat's Direct Procurement for Customers (DPC) model.

Pre-tender stage

The pre-tender stage commences following Stage Gate 1 approval and completes at Stage Gate 2 approval. The total duration of these activities is expected to be 42 weeks (10 months). Pre-tender activities comprise a range of activities aimed towards ensuring a well-prepared and successful tender process. These activities include requesting information to facilitate network studies, developing need-specific information, creating a robust commercial model, defining technical requirements specific to the need, establishing evaluation criteria and scoring methodology, conducting market engagement, and finalising tender documents, all of which are critical steps that will enable a tendering process to commence.

The timescales above are assumed for the first early competition tender and are driven by the comprehensive nature of these tasks. The current early competition tender process allocates a significantly higher proportion of time to Procurement Body and Ofgem-led activities compared to bidder-led activities. This is because the complexity involved with the early competition tender, along with the lack of process maturity associated with it being the first tender event, justify the need to allocate more time to preparation and governance activities.

A detailed overview of pre-tender proposals and activities is discussed in section 5.4.

Pre-Qualification stage

The PQ process is expected to follow a typical qualification stage structure and will take approximately 16 weeks (around 4 months) to complete. Upon the PQ stage launch, bidders will have access to bid documentation and details of the technical specification. Bidders will have 6 weeks as part of the PQ tender queries phase to seek clarification on aspects of the tender. Following this period, bidders will be required to submit their PQ. The PQ bid evaluation and moderation process is expected to take around 5 weeks, and an additional 3 weeks will be required for assurance and governance to be carried out to ensure compliance and adherence to tender guidelines. The Successful Bidders will be expected to provide a signed Non-Disclosure Agreement (“NDA”) to obtain access to commercially sensitive information as the tender process advances. The Procurement Body will provide an NDA template document as part of tender pack, and all eligible bidders are expected to sign with no changes to the template wording to successfully progress to the ITT stage. Once the NDA is in place, information sharing between the Procurement Body and Bidder can occur.

The time to complete the PQ process may be impacted if bidders request a bid submission deadline extension, evaluators find issues with the bid submission at a late stage that requires bidder clarification, or the DESNZ review under the National Security & Investment (“NSI”) Act process results in a call-in.

A detailed overview of PQ proposals and activities is discussed in section 5.7 below.

Stakeholder feedback

Stakeholders were generally supportive of the proposed timescales for PQ stages, noting that 6 weeks for tender queries and bid submission looks appropriate. Some stakeholders queried the time required to sign NDA and highlighted that this might take longer if no appropriate mitigation measures are put in place from the start of the tender period.

ITT Stage

The ITT process is expected to follow a typical tender assessment stage structure, with bid submission period, bid evaluation, moderation, and tender governance sign-off process in place. We estimate that a single ITT stage will take approximately 41 weeks (10 months) to complete.

Bidders are required to develop their bids and undertake relevant studies of the network to inform their bid submissions. This will be run in parallel to the tender queries (i.e. bidders’ questions to the Procurement Body), taking approximately 14 weeks. The evaluation process is split into expert assessment and moderation, which is expected to last around 9 weeks. In parallel, tender clarifications (i.e. Procurement Body queries to bidders) are conducted to ensure a comprehensive review of the bids. The evaluation process may be extended by another 10 weeks if the Procurement Body decides to run an optional Best and Final Offer (“BAFO”) exercise. Upon careful evaluation and following an internal assurance and governance process, a preferred bidder will be identified. Ofgem

will be notified of the outcome, and it will have 4 weeks to ‘veto' the outcome before the Stage Gate 3 approval is granted.

A detailed overview of ITT proposals and activities is discussed in section 5 below.

Stakeholder feedback

In some cases, stakeholders noted that the process could be shortened, for example reducing the approval time or conducting certain activities in parallel to the evaluation processes to shorten the overall timeline. These proposals were taken into consideration and resulted in the process being shortened.

Preferred Bidder Stage

The Preferred Bidder stage for early competition is expected to depart from the approach taken in the other tender structures we considered, as the primary objective of this stage is for the Preferred Bidder to obtain an electricity transmission licence within 29 weeks (around 7 months) from the preferred bidder award. There are no financial close or commercial arrangements negotiations expected during the preferred bidder stage. Upon becoming the preferred bidder, the bidder engages corporate compliance for assurance to ensure all necessary requirements are met. Following this, Ofgem is promptly notified, and preparations are made for a public announcement. The majority of the preferred bidder stage is focused on the licence application which is expected to take around six months. After Ofgem reaches a 'minded-to' decision, a statutory consultation process is initiated, expected to take 28 days. Prior to the licence being granted, the bidder is expected to accede to STC requirements. These activities form a crucial part of the post-preferred bidder phase, leading towards the finalisation of the licence and commencement of the awarded project.

A detailed overview of Preferred Bidder proposals and activities is discussed in section 5.10 below.

We expect to engage with Ofgem on how to reduce the timescales for this process to allow for faster delivery of assets. The time for the preferred bidder stage being proposed in this EC-I Update we therefore consider to be conservative.

Stakeholder feedback

Some concerns were raised by the stakeholders on the duration expected for the process of obtaining licence award during the Preferred Bidder stage. This feedback has been highlighted to Ofgem for further consideration.

Post-tender award process

The post-tender stage will commence upon successful licence award and will cover project development as well as operational activities. The timings for the post-tender process will depend on the preferred technical solution.

Illustrative timings for a typical network solution (for example, an overhead line) are shown below. Once the bidder is awarded the licence, the post tender stage will progress into, what is anticipated to be a 24-month preliminary works period. As part of preliminary works, the Successful Bidder is expected to develop its desktop proposal into a detailed design and undertake the consenting process, which is expected to take around 18 months.

In the last 6 months of this stage, the final solution costs are established through the iterative planning and consenting process, and the final TRS will be adjusted and fixed through the PPWCA and debt competition process. The final TRS will be submitted to Ofgem for approval as part of Stage Gate 4 that is expected to take around 1 month. Upon the approval, the Successful Bidder will be able to complete Financial Close (expected to take around 3 months) and begin the construction phase. While the construction period will vary depending on the selected technical solution, it is assumed that the construction period for a typical network solution may take around 24 months although we recognise that this timing can be variable.

A detailed overview of post-tender proposals and activities is discussed in section 5.11 Post tender award process below.

5.2 TO interfaces – Technical consideration

The below details the key input areas for TOs on how they interface with stakeholders in an early competition procurement event:

- **Collaboration –** TOs will be required to collaborate with the ESO during the early stages of the process, providing valuable input and data on potential solutions through the Network Planning processes.
- **Knowledge sharing –** TOs are expected to share relevant site-specific technical information and data with the ESO to facilitate a transparent and efficient competition process.
- **Commissioning –** TOs will engage with Successful Bidders during the project development phase to facilitate the interface and commissioning of the Successful Bidder asset, as they would do with any other transmission owner.

As part of the implementation phase of early competition we have explored the role of the TO during the tender process. Below we set out our proposed update to the ECP position and the key assumptions made at this stage for the purpose of further developing or changing the ECP position.

5.3 Development of the ECP position

TO role in early competition process

The process for identifying an indicative solution for competition is outlined in section 3. Under the tCSNP, once a project is identified, additional studies may be required by incumbent TOs to identify further details for inclusion within the technical specification for bidders. The scope of these studies encompasses the connection to and utilisation of the system, including assessments such as fault level evaluations, power flow analysis, and voltage assessments, including voltage step changes for the proposed solution. These studies will take place either as part of the CSNP or during pre-tender via additional studies, such is the case under the tCSNP.

Recommendation

Due to the early competition model being aligned more closely with the output of the network planning processes, incumbent TOs will no longer be required to assess bidder's solutions during the tender process.

Under the model proposed in this document, the incumbent TOs will no longer be required to assess bidder's solutions during the tender process as bidders will be constrained on the solutions they can provide, aligning the wider works to that of the indicative solution.

5.4 Pre-tender activities

In the ECP, we said that project information events and procurement support activities would be undertaken by the Procurement Body during pre-tender stage.

During the implementation stage, we have developed a detailed road map of activities required to be undertaken by the Procurement Body, Ofgem, DESNZ and Network Planning Body. The pre-tender stage will commence upon the ESO identifying projects that are new, separable and certain from the CSNP or interim tCSNP. The list of activities presented below has been identified and considered critical to reach two key milestones of the pre-tender stage, i.e. Stage Gate 1 and Stage Gate 2 approval.

For the avoidance of doubt, Stage Gate 1 approval launches the pre-tender period and so the time required to prepare and approve Stage Gate 1 is not included in the timings for section 5.1.

Stage Gate 1 activities (approximately 25 weeks):

- **Cost Benefit Analysis ("CBA"):** The ESO will undertake CBA assessment of the identified list of potential projects suitable for early competition. The assessment will provide each project a rank by CBA Net Present Value ("NPV") delta (base case), also considering amongst others the project priority, in service date and estimated construction period. The value for money assessment is expected to present potential benefits of each project in net present value terms. Details of the project identification process is outlined in section 3.

- **Development of Stage Gate 1 report:** the Procurement Body will draft an overview of the analysis undertaken by the ESO on the project identification and CBA in the report. Tender process timeline is expected to be provided in the Stage Gate 1 report for Ofgem to make a fully informed decision on the preferred project to be progressed through early competition.
- **Assurance sign-off:** internal and external Procurement Body assurance of the Stage Gate 1 report based on a robust internal governance framework. The internal assurance will be undertaken within the pre-tender stage process and will look to undertake a backward-looking review ensuring that the correct process has been followed. External assurance by a third-party will be used for initial tender rounds to confirm the internal assurance outcome. Once the ESO will gain experience in running early competition tenders, we anticipate that external assurance will not be a routine requirement for Stage Gate 1 sign-off.
- **Stage Gate 1 approval:** Following internal sign-off, the Procurement Body will submit the Stage Gate 1 report to Ofgem for approval. Once this is confirmed, the selected project will be progressed, and tender documentation will be finalised.

Stage Gate 2 activities (approximately 39-42 weeks):

- **Development of the project specific information:** detailed development of system needs and technical specification that will be shared with bidders as part of technical tender documentation. This is expected to include: System Requirement Form Part A, a network model, assumptions to be used for network modelling, and land ownership, access rights and survey information.
- **Stakeholder engagement with the wider market:** preparation and running of a webinar on Stage Gate 1 results – selected project. The webinar will be the first time that the wider market will be informed that the early competition tendering process is expected to be run for the specified project. In addition, the Procurement Body will run a series of engagement sessions and webinars to share information on the technical and commercial tender developments, for example justification on the developed project specific information.
- **DESNZ information sharing:** preparations are made for an information sharing session between the Procurement Body and DESNZ. The aim of the information session will be to inform DESNZ on potential bidders that are expected to participate in the tendering process as part of their National Security and Investment ("NSI") assessment process.
- **Finalisation of tender documentation:** updating the Tender Pack for developed project specific information. This will include review and finalisation of the commercial requirements (repricing methodology, debt competition guidance and securities requirements), documentation presenting information on the technical need, code requirements and tender governance. The Tender Pack will be reviewed by legal advisers prior to sharing with Ofgem.
- **Development of Stage Gate 2 report:** the Procurement Body will summarise key activities and decisions made to finalise the tender documentation. A complete set of tender documentation will be shared with Ofgem as the Approver as part of this report. The CBA will be re-run to also feed into the Stage 2 report to confirm that delivering the project through early competition still creates value for consumers.
- **Assurance sign-off:** internal and external Procurement Body assurance of the Stage Gate 2 report based on an internal governance framework. This ensures that decision-making processes are transparent, accountable, and aligned with our objectives. We expect that in the enduring early competition process, only internal Procurement Body assurance will be routinely required.
- **Stage Gate 2 approval:** Procurement Body governance and sign-off for Stage Gate 2 pack and documentation will follow after internal and external process assurance. Following internal sign-off, the Procurement Body will submit the Stage Gate 2 report to Ofgem for approval. Once this is confirmed, the pre-tender process will progress into tender release stage.

5.5 System Needs and Technical Specification

In the ECP, we stated that a range of fundamental technical needs will be considered when developing the technical specification. For each of these technical needs, it is likely that multiple

solutions are able to address the system need. The indicative projects required to meet a network need will be identified through the interim tCSNP and future CSNP and we use the indicative solution taken from the network planning process to derive the technical specification for a tendered project.

The system needs and technical specification document describes the need and the indicative solution in detail. It is used to ensure that all potential solutions meet the need, are analogous to the indicative solution and therefore compatible with the wider system. Needs align with the drivers of network investment (see section 3).

During the implementation phase we have developed further thinking around the structure and contents of the technical specification. We have defined the contents of the system needs and technical specification documentation, which is comprised of the context of the need, the geographical location, the need parameters, compliance requirements, network model and associated appendices. We outline each of the components below, including our proposed development to the ECP position and the key assumptions made at this stage.

5.5.1 Development of the ECP position

Recommendation

The technical specification and input parameters will have to be tailored for each indicative solution found eligible for early competition.

Template technical specification documentation will be available during the pre-tender phase for each competed project. The templates make provision for a broad range of needs, identified through various indicative solutions that are found eligible for early competition.

The ESO's NOA Methodology[66] Document sets out a comprehensive (but non-exhaustive) range of potential solution types that may be used to deliver increases in system boundary capability. These are in effect indicative solutions which could meet a need. We have considered each of these solution types in preparation of template technical specifications which are to be updated and tailored for the indicative solution during the pre-tender process.

The template technical specifications are a high-level functional document. The degree of project definition is comparable with the concept screening phase in a typical gated design process. As an example, the underlying information in the technical specification is not dissimilar to a System Requirement Form ("SRF" B), which is used to communicate TO solutions to the ESO previously used for inclusion in the NOA. The solutions that will be developed for inclusion into the CSNP, may undergo high level optioneering and impact studies. Indicative route options and connection points may be identified. Any studies and optioneering of the indicative solution for the CSNP will facilitate the development of a more narrowly defined technical specification. The following non-exhaustive list presents the various solution types that have been considered in the preparation of the template system needs and technical specification document:

- New Build – Substation Only (HVAC/HVDC).
- New build (High Voltage Alternating Current ("HVAC")/High Voltage Direct Current ("HVDC")) line only (excluding the substations, assuming that substation works required would not be for delivery by a CATO).
- New build (HVAC/HVDC link) line and substation within the same TO region. This example will also demonstrate interactivity issues.
- New build (HVAC/HVDC link) line and substation between two different but incumbent TOs, providing consideration of managing additional interfaces.

Template technical specifications are being prepared for each solution type based on real world projects to understand the robustness of the approach.

The following consideration is required in compiling the technical specification during the pre-tender phase as part of the tender documents:

[66] NOA methodology | ESO (nationalgrideso.com)

Balancing the degree of specificity

Striking the right balance in the technical specification is crucial for the success of early competition. Overly detailed and narrow specifications may limit the range of potential solutions and hinder innovation, which may exist within the delivery of the technical solution. On the other hand, less detailed and broader specifications may result in bidders struggling to effectively design solutions and accurately price associated risks, leading to an unmanageable tender process with numerous variant solutions, albeit aligned to the indicative solution.

To address these challenges, we have actively engaged with a diverse group of stakeholders, including TOs, investors, and construction and engineering services companies, covering various aspects of the electrical transmission infrastructure industry. The market engagement has confirmed that the proposed technical specification provides sufficient information for bidders to model and design effective solutions.

The below sets out the key components of the technical specification document: context of the need, geographical location, need parameters, interactivity, specifying the In-Service Date ("ISD"), availability and technical compliance requirements.

Stakeholder feedback

The information presented in the technical specification and its associated appendices is adequate for conducting a design.

Context of the need

The context of the need is intended to provide a bidder with broader insight into the need and the underlying reason why the need has materialised. It will describe what capability increase is required and in turn reference information supplied by any relevant studies used to enhance the design for potential CSNP requirement.

For example, boundary reinforcements will include a description linked to the "SRF Part B – What does the reinforcement solve". The context remains high-level and will include a description of the indicative solution.

Geographical location

Within the ECP we state that an approximate geographic location will be provided. The geographic location is driven by the underlying need and will be set as wide as possible but limited to the anticipated defined route study area established for the CSNP. Innovation in respect of the routing and asset placement within the route study area is therefore permissible within defined constraints. Specifying the geographical location as a bid parameter serves as a useful tool which can limit the boundary within which the solution will be delivered. This limitation also reduces risk associated with deliverability, specifically planning and consenting.

The ESO will establish whether the need requires amendments to the geographic limitation on a case-by-case basis, dependant on the specific need being tendered and level of detail assessed in the CSNP. Where these details have been either directly or indirectly determined through the CSNP, bidders may be provided with connection point and/or termination substation details as well as routing considerations. This may include routing constraints around location of large towns and other built-up areas, the location of physical features such as estuaries, or protected sites like Areas of Outstanding Natural Beauty, national parks or nature conservation areas, and any other routing considerations used in the assessment of options within the CSNP.

This will be appropriately outlined within the technical specification.

Need parameters

The ESO will set the capability increase based on the type of need that is competed. The capability increase will be specified in high-level values which may include the parameters, like the boundary capability increase typically associated with linear infrastructure.

Table 3 and Table 4 below are illustrative examples of the need parameters which will be defined in the technical specification which is linked to the commercial model. Both availability and the ISD are critical values that interlink with the commercial model adopted for early competition. These values will therefore form part of each specification.

Boundary	Base Case Boundary Capability	Boundary Capability Increase (Import/Export)	In Service Date	Note
B6, B7	6.0GW	4GW	1 July 2029	Location of connection points. Capability increase must cross both specified boundaries.

Availability
98%

Table 3: Specification for a boundary capability increase.

Technical Description	***Note***
Connect new OCGT to the transmission system which provides a NETS SQSS compliant connection.	*The capacity of the new power station is 200MW.*

In Service Date	***Availability***
1 June 2024	*98%*

Table 4: Specification to enable a new connection.

A system needs and technical specification document developed for a changing boundary capability may require the listing of multiple boundaries. If multiple relevant boundaries are specified the Required Delivery Date will be the same for all boundaries, reflecting the fact that the overall need is intended to be met by a single, co-ordinated, bidder solution.

The overlap of the relevant boundaries and the geographic location within which the solution may be delivered will expectedly narrow the potential alternative solutions that bidders may propose. These parameters naturally create an envelope within which variation to bidder solutions can occur.

Interactivity

Network boundaries are well defined, however there is consideration of how options in the CSNP interact with other projects. This means the additional boundary capability provided by an option is dependent on other options also being built. In setting out the technical requirement for an option with dependency or pre-requisite, the following should be considered:

- Consideration should be given to whether the additional boundary capability associated with all the interactive options can be grouped and presented in the same technical requirement i.e. a single tender for several indicative solutions. This can only be considered if all the interactive options in an optimal delivery path are suitable for early competition by virtue of their eligibility assessment.
- If only some of the interactive options in an optimal delivery path are suitable for early competition, consideration should be given to how the interactivity of options can be specified in the technical requirement. This will be managed on a case-by-case basis.
- There may be interdependencies with other recommended projects from the CSNP which may not be fully understood until the submission of the bids. This is especially the case where the tender process may overlap with the envisaged CSNP publication.

Specifying the In Service Date (ISD)

ESO will consider setting the ISD at a value that coincides with the EISD. The EISD is specified as ”the earliest year an option can be delivered and be operational”. This is different to the ISD which will be included in the technical specification and aligns with the commercial model Commissioning Date.

There is however an opportunity to change the ISD if there is an advancement benefit, i.e. where there are significant constraint cost savings in delivering the need earlier than the EISD. ESO will perform relevant analysis to support the selection of an ISD which differs from the EISD.

The following factors are considered in setting the ISD earlier than the EISD:

- The ISD must be set at a date which makes delivery of the solution technically feasible. This should include enough time to obtain planning and consenting approval and sufficient time to construct and commission the project. Confirmation of the timing must be appropriately evidenced.
- We will not set an ISD date earlier than an EISD which would result in an uncompetitive tender process by virtue of a reduced bidder pool.
- The ISD is developed and refined during the pretender phase which provides an opportunity for market engagement to support the likely delivery timelines.
- Realistic values for the ISD should consider the performance of historically delivered projects to the initially stated EISD.
- Note that there are no incentives for earlier delivery once the ISD is set during the pre-tender stage. Bidders will not score higher during bid evaluation by committing to earlier delivery compared to what is set in the technical specification (also see section 4.6.5 incentives for delivery)

Availability

The availability will also be stipulated in the technical specification parameters. Availability is an important parameter to define as it is both a measure of Successful Bidder performance and links to the payment mechanism. Availability therefore serves as the key performance adjustment to the TRS as set out in section 4.6.

The determination of availability is rooted in the underlying technical requirements, ESO will be able to substantiate the availability in line with the underlying need on a case-by-case basis. It is anticipated that an initial target availability will be set at 98% based on precedence in the OFTO regime and alignment with the broad requirements of the SQSS.

There is an interaction between availability and capability. Capability is defined by the need and should be set irrespective of the indicative solution. The need will be converted into a tangible capability measure for the purposes of the availability calculation and will be based on Megavolt Ampere (“MVA”).

Availability is set for the entire system proposed by the bidder, and similarly, capability within the technical specification pertains to the system as a whole. When a component within the system experiences a decrease in capability that does not influence the overall system's capability, availability remains unaffected. If a constituent component's reduced capability impacts the overall system's capability, it will have an impact on availability.

Technical compliance requirements

The technical specification will include a list of minimum standards and regulations to which the Successful Bidder must adhere.

The Successful Bidders shall comply with the following list of codes, dependant on the nature of their solution:

- Grid Code (GC67)

[67] Grid Code (GC) | National Grid ESO

- The System Operator Transmission Owner Code (STC)[68]
- The System Operator Transmission Owner Code Procedures (STCP)
- The National Electricity Transmission System Security and Quality of Supply Standard (NETS SQSS[69])

No derogations from these requirements will be allowed. It is required that all relevant codes and standards are complied with in so far as it is a requirement for the proposed solution.

Recommendation

The technical specifications will seek to refrain from explicitly mentioning specifications not covered by existing codes or legislation.

The Successful Bidder will comply with various self-nominated design standards and where unfamiliar standards are being used these will be appropriately determined and explained during the bid process. A Successful Bidder's approach to design utilising technical design standards will be assessed during the ITT stage.

Interface site document

The technical specification includes high-level parameters including interface site details. The following information will be provided to bidders:

- Substation fault levels – Busbar fault details at point(s) of interconnection
- Fault level – Infeed details at point(s) of interconnection (if applicable)
- System impedance
- Site layout and bay details
- Operational diagrams for existing TO substations at point(s) of interconnection (if applicable)
- Existing protection key line diagrams for existing TO substations at point(s) of interconnection (if applicable)
- Interfaces with existing and future TO projects (if applicable)
- Integration into existing automation schemes (if applicable)
- Line connections into existing (if applicable, for new connections)

Network model

The ETYS 70 model is a representation of Great Britain's ("GB") NETS and provides a diagrammatic representation of the system, along with key transmission, generation, and demand data. This network model will be provided to the bidders as part of the technical specification. It should be noted that the CSNP annual products[71] may replace and is likely to be analogous to the ETYS.

A model representation of the GB NETS will be shared with bidders after the PQ phase once a confidentiality agreement is signed, enabling bidders to develop and iterate their solutions. The GB NETS model contains schemes which are the transmission licensees' best view of their future network assets for each year of the network planning timeframe (timeframe covered by the FES). Bidders will be required to create their own schemes using the model. Once they have crafted the initial solution, they should assess its electrical impact against the tender specification's indicative solution, which serves as a representation of a solution meeting the technical requirement.

The model will be used to communicate network details and technical parameters to bidders. The model of the indicative solution will be incorporated into the existing model. The modified model will be dispatched (solved) by the bidder to validate the bidder proposed scheme to ensure that it meets the network need as per the technical specification. Providing the model as a tool to bidders will facilitate their iterative processes.

[68] System Operator Transmission Owner Code (STC) | National Grid ESO
[69] Security and Quality of Supply Standard (SQSS) | National Grid ESO
[70] Electricity Ten Year Statement (ETYS) 2021 | National Grid ESO
[71] Decision on the framework for the Future System Operator's Centralised Strategic Network Plan (ofgem.gov.uk)

For bidder practicality, only a small number of scenarios and years will be modelled and analysed. Scenarios are selected based on availability of the most detailed model. Bidders will consider winter peak as the base case to stress the transmission network and allow analysis of network development options.

5.6 Tender structure

The tender process will consist of: PQ, ITT and Preferred Bidder stage, as shown in Figure 12.

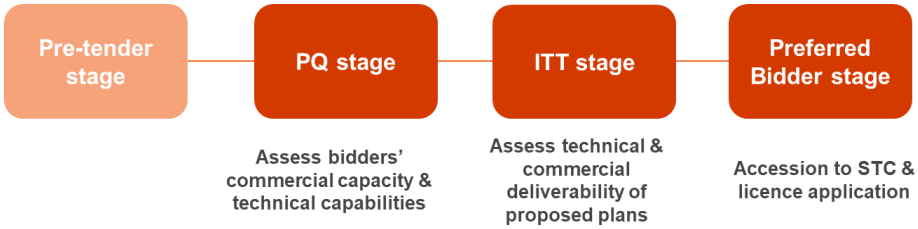


Figure 12. Stages of the tender process

The tender regulations are currently being drafted by Ofgem and the tender process will be set out in detail in those regulations. As such, the proposals set out below are indicative and may require amendments to ensure compliance with the tender regulations.

5.6.1 Tender governance

The tender governance process developed as part of the ECP sets out a framework for the Approver to review progress and approve recommendations at five different points; referred to as Stage Gates. These stages play a fundamental role in guiding the entire process, ensuring it remains well-organised, transparent, and compliant with tendering requirements. The Approver is Ofgem for the majority of the Stage Gates, but not all.

As part of the implementation stage, we have further defined the objective and key elements to be reported by the Procurement Body to the Approver at each Stage Gate.

Stage Gate	1	2	3	4	5
Description	List of projects to take to pre-tender	Launch tender	Preferred bidder approval	Final approval post-financial close	End of revenue period options
Approver	Ofgem	Ofgem	ESO	Ofgem	Ofgem

Table 5: Stage gates and responsible approver

Stage Gate 1: At this initial stage, the primary objective is to secure approval for which network needs should proceed through early competition tendering process. The Procurement Body will seek Ofgem's approval to initiate pre-tender activities for the selected need(s). To evidence the proposed recommendation, the Stage Gate 1 report will be expected to provide an overview of:

- **Project Identification –** assessment of which projects align with the assessment criteria for competition.
- **Cost-benefit analysis –** assessment to determine whether the project(s)'s delivery through early competition would benefit end consumers.
- **Market appetite –** an overview of the Procurement Body's understanding of potential bidding market for the selected project(s).

- **Information sharing –** a timeline setting out when information is expected to be shared with the wider market to allow potential bidders to prepare for the tender process.

Stage Gate 2: The Procurement Body will develop a Stage Gate 2 report based on the completed pre-tender stage activities. The primary objective at this stage is to gain approval for the launch of the early competition tender process. This will require Ofgem's approval of the tender documentation, technical specification details and finalised commercial arrangements. The report will cover the following topics:

- **Tender Pack documentation –** a comprehensive overview of the tender documentation that will be shared with bidders. The Procurement Body is expected to highlight key changes to existing templates and attach a full Tender Pack to the Stage Gate report.
- **Market appetite –** a summary of the steps undertaken to engage with the market on the selected project, outlining key market events and bilateral sessions, and an overview of market feedback which influenced any changes to the Tender Pack documentation.
- **Tender timeline –** a detailed timeline developed specifically for the shortlisted project.
- **CBA Update –** the CBA will be updated based on market data gathered throughout the pre-tender period to check that early competition is still likely, based on the balance of probabilities, to deliver value for customers.

Stage Gate 3: Upon a successful completion of the ITT evaluation process, the Procurement Body will undertake a robust assurance and governance process prior to submitting a recommendation as part of a Stage Gate 3 report to the Approver (the ESO at this stage gate) as to which bidder should be made the Preferred Bidder. The report will set out an overview of the undertaken evaluation process and recommendations proposed by the Procurement Body for:

- **PQ results –** a summary of the evaluation report presenting outcomes of the PQ bid assessment, detailing the shortlisted bidders, and providing justification as to why certain bidders failed to progress to the next stage, if relevant.
- **ITT results –** a summary of the evaluation report presenting the results of ITT bid evaluation, setting out the recommendation for the selected Preferred Bidder and justification for undertaking a BAFO stage, if relevant.

Stage Gate 4: As part of Stage Gate 4, the CATO will seek Ofgem's approval for the commencement of the solution delivery phase. The Stage Gate report will be shared with Ofgem upon conclusion of the preliminary works stage.

Stage Gate 5: The objective of the final Stage Gate is to secure Ofgem's approval for the preferred end-of-revenue period option. This decision carries substantial implications for the project's financial and operational aspects. Following this stage gate, it will be expected that regular reporting of project performance against Successful Bidder requirements will be provided by the CATO to Ofgem.

5.7 Pre-Qualification

In the ECP, we said that the PQ stage will assess bidders' commercial and technical capacity and capabilities to deliver the need as well as legal standing. A series of overarching evaluation criteria were developed at that stage. Below we set out our proposed updates to the ECP position and the key assumptions made at this stage for the purpose of further developing or changing the ECP position.

5.7.1 Development of the ECP position

Evaluation criteria

Since the ECP, we have developed a detailed outline of applicable evaluation criteria for financial, technical, and general legal standing assessment areas.

Recommendation

Only bidders that pass all technical, commercial, and general evaluation criteria requirements will be shortlisted to progress to the ITT stage.

The assessment will be undertaken on a Pass/Fail basis. The evaluators for each evaluation criteria will propose a “Pass” or “Fail” recommendation. The evaluators will have an opportunity to clarify responses with bidders where appropriate. If a Bidder receives a "Fail" on any question or fails to provide the required information, then this will result in the Bidder being excluded from the procurement process.

Financial evaluation criteria

The key objective of the financial standing evaluation is to assess whether a Bidder (or any third party being relied on for financial standing) has sufficient financial strength to deliver a contract of scale and duration similar to the Project. It is also to determine the level of financial risk that the Bidder would represent if Ofgem were to grant them a licence. An interested company is allowed to participate in the bidding process solely as part of a single bidding entity (either in a form of a sole bidder or a consortium). A construction contractor partner is expected to be a part of the bidding entity and committed to delivery of the project, if successful. Any changes to the bidding entity organisation structure will need to be approved by the Procurement Body at their discretion.

The proposed financial standing evaluation criteria will look at assessing:

- **Raising debt finance**: details of experience in raising debt finance for at least two relevant infrastructure projects on project finance basis. The Bidder or a relevant third party being relied on are expected to have a minimum of 20% participation, interest or shareholding in the project company or equivalent vehicle that carried out the reference project that demonstrates the required experience.
- **Raising equity finance:** details of experience in raising equity finance for at least two relevant infrastructure projects on project finance basis. The Bidder or a relevant third party being relied on is expected to have a minimum of 20% participation, interest or shareholding in the project company or equivalent vehicle that carried out the reference project that demonstrates the required experience.
- **Holding equity finance:** details of experience in holding equity in at least one relevant infrastructure project during the operational phase. The Bidder or a relevant third party being relied on are expected to have held equity for a minimum three years and still holds its stake or sold its stake not more than five years ago. It also had a minimum of 20% participation, interest or shareholding in the project company or equivalent vehicle that carried out the reference project that demonstrates the required experience.
- **Net worth of equity investors:** bidders are expected to provide the net worth for the three most recent financial years, i.e. the total value of assets less the total value of liabilities. The net worth of the Bidder or relevant third party being relied on, excluding Financial Investors (who are expected to only provide confirmation that the project is in line with their investment policy as they are expected to have balance sheets far in excess of project value[72]), in each of the three previous financial years will need to be equal to or greater than a pre-defined threshold in order for a bidder to pass this requirement. The relevant threshold required to pass the financial standing test will be set at an appropriate level for each project.
- **Annual Turnover Lead Construction Contractor:** bidders are expected to provide the annual turnover for each Lead Construction Contractor for each of the three most recent financial years. The relevant turnover threshold required to pass the financial standing test will be set at an appropriate level for each project.

[72] This is consistent with other UK precedents such as Silvertown Tunnel.

- **EBITDA for each Lead Construction Contractor:** bidders are expected to provide the EBITDA (earnings before interest, taxation, depreciation, and amortisation) for each Lead Construction Contractor for each of the three most recent financial years. The relevant threshold required to pass the financial standing test will be set at an appropriate level for each project.
- **Audited annual accounts and other material financial information**: bidders are expected to provide copies of the consolidated audited financial statements for the past three financial years, including auditor's opinions, and any interim financial statements for partial periods that have become available since the most recent annual audited financial statements were released. The relevant threshold required to pass the financial standing test will be set at an appropriate level for each project.

Technical evaluation criteria

The objective of technical experience assessment is to determine whether bidders have experience delivering a solution of comparable scale and complexity to the tendered project. Bidders will be expected to demonstrate their experience through a case study description and evidence information provided as part of the PQ submission.

Bidders will be required to rely on case studies projects where relevant works have been undertaken within the last 10 years (from the tender launch date). The proposed technical evaluation criteria will look at assessing:

- **Preliminary works:** bidders will be required to outline their approach and experience of undertaking preliminary works (e.g. design from concept up to start of construction) of projects of comparable scale and complexity.
- **Planning and consenting:** approach and experience, of progressing planning and consenting, up to final approvals for projects of similar complexity and size within similar planning regimes by making reference to at least two case studies.
- **Construction:** details of experience of construction/installation works of comparable scale and complexity to the need.
- **Operation and maintenance:** details of experience of maintaining and operating works of comparable scale and complexity to the need.
- **Subcontractors and Supply Chain:** details of implemented processes and procedures to manage the supply chain, how they had managed the supply chain throughout the phases of the project life cycle and managed the interfacing within the supply chain.

General evaluation criteria

The objective of the general bidder information is to set out who is the bidder and relevant parties that may influence the development of the project. The proposed general evaluation criteria will look at assessing:

- **Bidder details:** including details of the bidding entity and construction contractor as well as Sole Bidder's company or each Consortium Member's immediate parent company and ultimate controller details. For example, full name, VAT registration number, registered office address, date of registration in country of establishment, place of incorporation and trading status.
- **Shares, adviser details and licences:** details of directors of all bidding entities, details of 5 largest shareholders for all bidding entities, legal/financial/technical advisers (if applicable), and other licences held by the Sole Bidder or each Consortium Member (if applicable).
- **Grounds for exclusion:** bidders are expected to identify relevant situations which have arisen at any time within the past 3 years (from the tender launch date) that may lead to grounds for exclusion.

5.8 ITT stage

In the ECP, we said that the Invitation to Tender should comprise of a two-stage process. At ITT Stage 1, it was planned for bidders to submit an initial solution design based on the need specification. A preferred bidder would be selected as part of ITT Stage 2 which is the final assessment stage for early competition. The ITT Stage 2 enables the Procurement Body to select a Preferred Bidder that has submitted the solution which has scored highest overall in accordance with the stated evaluation criteria and methodology. The assessment was based on qualitative assessment of proposed technical solution's deliverability and commercial assessment of the proposed TRS. The scores of both assessments would be combined into one overall score.

As set out in section 2, the network planning process has evolved. Based on which the tender process has been simplified into a single ITT stage compared to the proposed tender structure in the ECP. In the ECP, the main justification for the two stage ITT process was to allow bidders to undertake their own network studies and for the ESO to assess that the proposed projects would meet the need prior to bidders spending significant resources in developing their detailed proposals. Given that the revised proposals to network planning assume that the CSNP would undertake high level design and set out the allowable solution space, the need for network studies assessment has been greatly reduced as bidders' solutions will all be based on a common indicative solution and likely connection points.

During the implementation phase we have been developing detailed evaluation criteria, evaluation questions and progressing the scoring approach for a single ITT stage based on the ECP's overarching proposals. The expectation is that during the pre-tender stage, the Procurement Body will finalise the tender questions, weightings for each qualitative evaluation criteria category and element as well as set what proportion of the TRS submissions can be adjusted based on the qualitative assessment. The level of design to demonstrate solution deliverability will depend on the nature of the proposed technical solution.

Below we set out our proposed changes and updates to the ECP position and the key assumptions made at this stage for the purpose of further developing the ECP position.

5.8.1 Changes to the ECP position

Tender structure

With the CSNP undertaking high-level design and anticipated to set the allowable route study area, the need for the assessment as part of ITT Stage 1 is greatly reduced, as bidders' solutions will all be based on a particular indicative solution and likely connection points. This could allow for a simpler assessment as to whether the technical specification requirements are met and allow for the two ITT stages to be combined into a single assessment process. The overall tender process would decrease by circa 20 weeks compared to a two stage ITT process.

A single ITT phase does mean that the Procurement Body is entirely reliant on the PQ stage to down-select to an appropriate number of bidders. We will continue to test and refine these proposals as part of the market engagement to ensure that the arrangements are attractive to bidders.

As a result of the proposed changes to the CSNP, the initially envisaged role of TOs as part of the ITT assessment will no longer be relevant.

The ECP set out that the following elements should be considered as part of ITT Stage 1:

- **Meeting the technical specification** – bidders to demonstrate that they will meet the need stipulated in the tender specification which included the electrical requirements, ISD, and other relevant obligations tailored to the specific need.
- **Risk to network reliability** – bidders to demonstrate technology readiness level 8 or more and provide feasibility studies to demonstrate stability support and connections assessment.
- **Deliverability** – an assessment of the initial solution design on issues which may undermine potential delivery.
- **Environmental and social impacts** – an assessment bidder solution impacts on the environment and wider society.

Based on the proposals for the CSNP we have concluded that the first two elements of ITT Stage 1 (i.e. meeting the technical specification and risk to network reliability) should be still assessed as part of a single ITT stage. These two elements will continue to be scored on pass/fail basis.

The remaining ITT Stage 1 elements are covered in greater detail by the qualitative elements initially designed for ITT Stage 2, and have been removed for the combined assessment as part of a single ITT stage. As a result of these changes, there will be no TO involvement required to complete bid assessment as part of the ITT stage.

Scoring of qualitative responses

In the ECP we recommended that the qualitative responses should be assessed based on the evidence provided for each question. The proposed evaluation scoring approach would allow evaluators to award a score between 0 (no evidence) and 5 (high quality evidence), depending on the level and quality of evidence provided.

Recommendation

The standard scoring approach is simplified to allow a clear delineation between the quality of responses.

A typical project development lifecycle process has various levels of design development based on project maturity as set out below in Table 6. We have used this as a guide to help inform the design of our bid evaluation criteria for early competition where we expect bidders to have the information available to develop their design to a concept study level.

	Dimension		
Project development life cycle phase	**Concept study**	**Pre-feasibility study (PFS)**	**Feasibility study/ Bankable feasibility study (BFS)**
Level of capex contingency required (for the purpose of ECP)	30% to 50%	20%	15%
Alignment to AACE class[73]	Class 3/4	Class 2	Class 1
Match to technical score	1	3	5
Basis for cost estimate	Capacity or equipment factored, parametric models, judgement or analogy	Semi detailed bill of material; overall work breakdown structure and work packages; budget supplier quotations	Detailed bill of material, unit costs with some forced detailed take-offs; planning; defined work packages; firm bids bids/quotations

Table 6: Level of detail and evidence expected for scored ITT questions.

The generic scoring approach above will be applied to all scored questions. Bidders' responses will be evaluated against these standard requirements in addition to additional guidance specific to elements or sub-elements within the evaluation criteria.

The scoring description allocated to each score is based on the following components:

- The response itself;
- Capability, resource and experience to support the response to the question; and
- Cost certainty considering the cost estimation approach used by the bidder. Note that this component is only applied where a question specifically relates to how costs are built up.

[73] AACE Classification System.

However, it was noted that the differences between very poor and poor evidence as well as satisfactory and good evidence were not clear enough to allow for consistent evaluation scores by two independent evaluators. Therefore, it was recommended the standard scoring rubric be simplified, as shown in Table 7 below.

Score	Short Description	Description
0	No evidence	■ No or inadequate response to the question. The response contains material omissions or provides no supporting evidence.
1	Very poor evidence	■ Response inadequately addresses the question and / or includes inadequate supporting evidence. ■ The response very poorly demonstrates that the bidder has the capability, resource and experience to sufficiently deliver the solution. ■ The methodology for cost estimation relies on capacity factoring, parametric models, judgment, analogy, or stochastic estimating methods.
3	Satisfactory evidence	■ Response addresses the question well and includes good supporting evidence which is relevant to the requirements. ■ The response demonstrates some additional value and /or additional benefits which are realistic and measurable, and that the bidder has the capability, resources, and experience to sufficiently deliver the solution. ■ The methodology for cost estimation builds on the previous category, and is semi-detailed with assembly level line items, a work breakdown structure and identified work packages, and includes some budget quotations from suppliers.
5	High quality evidence	■ Response is comprehensive and detailed and fully addresses the question. The response provides excellent supporting evidence / examples / information which are relevant and fully aligned to requirements. ■ The response clearly demonstrates exceptional additional value and/or additional benefits and innovations which are realistic and measurable, and the bidder has the capability, resources, and experience to sufficiently deliver the solution. ■ The methodology for cost estimation builds on the previous category, and includes detailed material take-offs, unit costs with some forced detailed take-offs, work breakdown structure and planning, defined work packages and firm bids/quotations.

Table 7: ITT standard scoring rubric

5.8.2 Development of the ECP position

Assessment topics

Since the ECP, we have developed a detailed outline of applicable evaluation criteria assessment categories for the scored questions based on the initially developed ITT skeleton.

The qualitative assessment of deliverability has been grouped into 5 key categories:

- **Deliverability and delivery plan (Construction) –** considerations and evidence of the approach to construction planning inclusive of the assessment of key elements linked to repricing.
- **Planning and consenting strategy –** details of the consenting strategy.
- **Deliverability and delivery plan (O&M) –** considerations and evidence of the approach to meeting operations and maintenance obligations.
- **Supply chain strategy and approach to costing** - considerations and evidence of the supply chain approach during the construction and operational phases of the project. Bidders will be expected to evidence the basis of various cost categories contributing to the financial model inputs to derive the TRS.
- **Financing strategy** – details and evidence of the approach to financing the project.

Recommendation

Bid submission will comprise of a qualitative response to test deliverability and commercial proposals.

The bidder that passes all Pass/Fail questions and scores the lowest adjusted TRS will be selected as the Preferred Bidder.

Combined scoring approach

The combined scoring was proposed in the ECP and will be based on the score of qualitative evaluation criteria and scoring based on the TRS amount.

Bidders will be required to pass all questions in relation to meeting the technical specification and risk to network reliability. If a bidder fails one or more pass/fail questions, then the scored questions and TRS proposals will not be further evaluated, and the bidder will be eliminated.

Category	Element
Meeting the technical specification	Technical information to illustrate that the solution meets the need as outlined in the technical specification
Risk to network reliability	Demonstration of technology readiness
	Demonstration of the impact on existing networks

Table 8 Pass/Fail ITT categories.

Bidders will be required to state the required TRS amount per annum in their financial models. The TRS payment forecast in each year will be discounted using the Green Book discount rate to calculate a NPV of the total payments to the bidder over the revenue period. In addition, the Procurement Body will take into consideration the cost estimate of wider works required to be undertaken by TOs to facilitate the integration of the proposed technical solution with the wider network.

The combined qualitative score will be calculated based on the category and element weightings. As shown in the table below, the proposed weightings have been determined based on the importance of this category in respect of cost certainty and deliverability. These weightings are expected to be calibrated and finalised at the pre-tender stage by the Procurement Body. Table 9 below presents an indicative category weighting proposal, subject to change at pre-tender stage for the specific need being procured.

Category	Category weighting	Element	Element weighting
Deliverability and Delivery plan (Construction)	30%	Project description	10%
		Execution plan	20%
		Project schedule	20%
		Approach to key deliverables	40%
		Interface approach	10%
Planning and consenting strategy	20%	Approach to planning and consenting	80%
		Approach to environmental requirements	20%
Deliverability and delivery plan (O&M)	15%	Operational obligations	10%
		Asset management approach	30%
		Operations management approach	20%
		Operational availability	10%
		Readiness planning for Major Failure Events	15%
		Continuous improvement approach	15%
Supply chain strategy and approach to costing	25%	Supply chain approach	10%
		Supply chain key deliverables	10%
		Contracting approach	3%
		Capex contracting	3%
		Opex contracting	3%
		Contracting for services	3%
		Estimate Basis	10%
		Labour Rate	7%
		Labour productivity	7%
		Construction Equipment	7%
		Freight	7%
		Advisor cost (financial, legal technical, insurance, tax etc.)	3%
		Temporary Facilities	3%
		Indirect costs	3%
		Escalation	5%
		Contingency	10%
		FOREX	3%
		Changes to costing approach	3%
Financing strategy	10%	Financial advice	12%
		Model audit	5%

Category	Category weighting	Element	Element weighting
		Debt term sheet	5%
		Funding of preliminary works	20%
		Funding of construction - equity	20%
		Funding of construction - debt	6%
		Debt commitment	12%
		Debt funding competition and Financial Close strategy	20%

Table 9: Indicative ITT category weightings for the scored questions

The overall score will comprise of a Pass or Fail score for the preliminary set of ITT questions, and a score for the qualitative ITT assessment that will be combined together with the TRS amount as set out in the ECP. A combined score will be only derived for bidders that will Pass all preliminary ITT questions.

5.9 BAFO

In the ECP, we said that a BAFO stage may be required if there are two bidders with a similar 'adjusted TRS', with the range pre-defined by the Procurement Body during the pre-tender activities. The two lowest bidders will be asked to resubmit their bid submissions in relation to their TRS only for the re-evaluation of the bids.

During the implementation phase we have further considered in what cases should a BAFO stage be introduced and we developed a timeline process for this stage. Below we set out our proposed updates to the ECP position and the key assumptions made at this stage for the purpose of further developing or changing the ECP position.

Tender documentation will include a general provision allowing the Procurement Body to run a BAFO stage at their discretion. The tender documentation will allow the Procurement Body to decide if a BAFO stage might be beneficial depending on the closeness of the bids at that point.

BAFO bid will only allow bidders to amend the TRS amount. Other elements of ITT bid submission are expected to be unchanged during the BAFO stage.

Tender documentation will include a general provision allowing the Procurement Body to appoint a Reserve Bidder in addition to Preferred Bidder as part of ITT bid evaluation process as the Procurement Body considers is appropriate.

5.9.1 Development of the ECP position

BAFO stage

The competitive nature of a BAFO process is expected to drive further value for the end consumers in circumstances where one or more bidders have a similar adjusted TRS for evaluation purposes only to the lowest adjusted TRS bidder. The use of the BAFO will be at the Procurement Body's discretion.

The BAFO process can be realised through the several potential drivers of value. Key strengths and/or weaknesses of each option are highlighted below:

- Option 1 – Improved quality offering: delivery aspects include delivery timetable and methodology; technical aspects such as design and material quality. This could mean the bidder provides greater certainty on the quality and/or punctuality of delivery.
- Option 2 – Offering a value-added element: risk elements such as where the risk sits and who is responsible for managing them. Bidders may offer to bring in external expertise at their own expense to manage risks, and/or introduce an insurance agreement, which accepts liability and

guarantees that the contractor will not withdraw their bid under any circumstances, and/or evidencing problem-solving with regards supply chain matters.

- Option 3 – Lower costs (i.e., TRS): commercial aspects either in a form of a better overall price (or most economically advantageous tender), multi-year discounts and/or rebates and payment terms.

Recommendation

The Procurement Body, at its discretion, may run a BAFO process where one or more bidders have similar adjusted TRS to the bidder with the lowest adjusted TRS.

Our recommendation is to run the BAFO based only on costs, i.e., bidders will be asked to resubmit their commercial TRS proposals.

Based on the above, we concluded that Option 1 and Option 2 are not suitable as bidders may propose different technical solutions as part of their bid submissions making the assessment of these options very subjective. BAFO assessment using Option 3 approach is the preferred approach.

If the BAFO is utilised, the first tender is expected to have a longer ITT stage by approximately 10 weeks to allow the two lowest bidders to reflect and resubmit their TRS proposals along with financial models. The revised TRS offerings will be re-evaluated following the same scoring approach as ITT bid submissions to derive a combined TRS adjusted score. This is an optional stage and is to be used only as deemed appropriate by the Procurement Body.

We anticipate that other elements of negotiation could be considered by the Procurement Body in the future once the early competition market matures.

5.10 Preferred Bidder stage

In the ECP, we said that a Preferred Bidder stage will comprise of Stage Gate 3 submission to the Approver, public announcement of Preferred Bidder award, standstill period, electricity transmission licence award and connection agreement application.

During the implementation phase we have further developed, using a bottom-up approach, activities to be undertaken during the Preferred Bidder stage. Below we set out the key considerations for the Preferred Bidder stage.

- Stage Gate 3 submission and the approval will be received as part of ITT stage. Bidders will be notified of the outcome only once Ofgem confirms it does not intend to veto the ITT evaluation recommendations.
- The first early competition tender process we anticipate will require the most time due to additional assurance checks by the Procurement Body. Potential timing efficiencies will be further discussed with Ofgem.

5.10.1 Development of the ECP position

Preferred Bidder stage

Since the ECP, we have developed a step-by-step process flow of the Preferred Bidder stage with bottom-up assumptions on the timings required to undertake these activities for the first early competition tender process.

Key Preferred Bidder stage activities are as follows:

- **Compliance and assurance:** The Procurement Body plays a critical role in ensuring that early competition tenders are run in a transparent way and comply with the tender rules. The ESO will seek independent assurance that all aspects of the procurement align with the established guidelines and legal requirements.

  It is expected that this assurance process will take around 2 weeks.

- **Preferred Bidder award publicly announced:** Upon receiving the tendering outcome from the Approver, Ofgem intends to have the option to veto the decision. In the absence of Ofgem's veto, the Procurement Body will formally announce the Preferred Bidder award to the market. The public notice will specify the name and the address of the preferred bidder, and describe in general terms the matters to be resolved by the Preferred Bidder to the Procurement Body's satisfaction before that Preferred Bidder becomes the Successful Bidder. The public announcement will be issued immediately once the assurance process is completed.

Recommendation

The Preferred Bidder stage is expected to take around 7 months, however, this timing is materially dependent on the licence award process which is expected to take around 6 months.

We will work with Ofgem to consider whether the time for the licence application process can be shortened.

- **Standstill Period:** Once the announcement is made public, we will enter into the standstill period. The standstill period is a period of at least 10 calendar days, during which the award process is suspended, i.e. the licence will not be awarded.
- **Dispute process (if required):** Dispute resolution processes, though yet to be fully determined by Ofgem, will be designed to handle any conflicts or disagreements that may arise during the procurement process (see section 2 for discussion on the Procurement Act). These mechanisms are essential for ensuring fairness and equity and for resolving issues promptly and fairly to maintain the overall integrity of the procurement process.
- **Electricity transmission licence award:** The Preferred Bidder must apply for the electricity transmission licence before they can accede to the STC.

  The current process flow maps assume a six-month period required from the start of the application process up to licence award, based on Ofgem's published timescales.[74]

  We expect to work with Ofgem as part of early competition implementation to reduce this timeframe down as much as practically possible. The licence application and award process currently adds a significant period of time into the early competition tender process where no other activities can take place.

- **Handover**: Following licence award, the Procurement Body will officially complete the early competition tender process. The Counterparty is the selected body overlooking the post-tender award process. It is expected that Ofgem will be the Counterparty. The closing of the tender process and handover to the counterparty will be undertaken immediately upon successful licence award.

In total, the Preferred Bidder stage for the first early competition tender may take up to 29 weeks from the end of the ITT stage.

5.11 Post tender award process

As detailed in the ECP, the Successful Bidder will be required to undertake the preliminary works followed by solution delivery, commissioning and operations of the project post tender award.

During implementation the ESO has further outlined the process roadmap for undertaking preliminary works activities. The sections below set out key activities and potential timings to transform desktop design to a detailed design, obtain consenting approvals as well as complete PPWCA and debt competition. This section also highlights those areas of the process where we have identified material risks which require further consideration by Ofgem.

[74] Applying for a gas or electricity licence – Paragraph 2.22

During the consenting phase, the Successful Bidder will work to obtain necessary approvals demonstrating that the proposed network solution complies with environmental, safety, and land-use regulations. The Successful Bidder will need to gain the trust and support of the communities and authorities involved to secure the necessary permits.

In parallel, the Successful Bidder will work to evolve the initial desktop proposal into a comprehensive and technically sound detailed design. The detailed design will be dependent on the proposals set in place to obtain consents, and therefore we anticipate the successful solution design will continue to evolve throughout the preliminary works process stage as the consent process is undertaken and further engagement with the supply chain occurs. The successful bidder will take their solution design to the stage at which it is sufficiently detailed to enable construction to commence.

In the last 6 months of the preliminary works stage, the final TRS will be adjusted and fixed through the PPWCA and debt competition process. The final TRS will be submitted to Ofgem for approval as part of Stage Gate 4. Following which the Successful Bidder will be able to complete Financial Close and begin the construction phase.

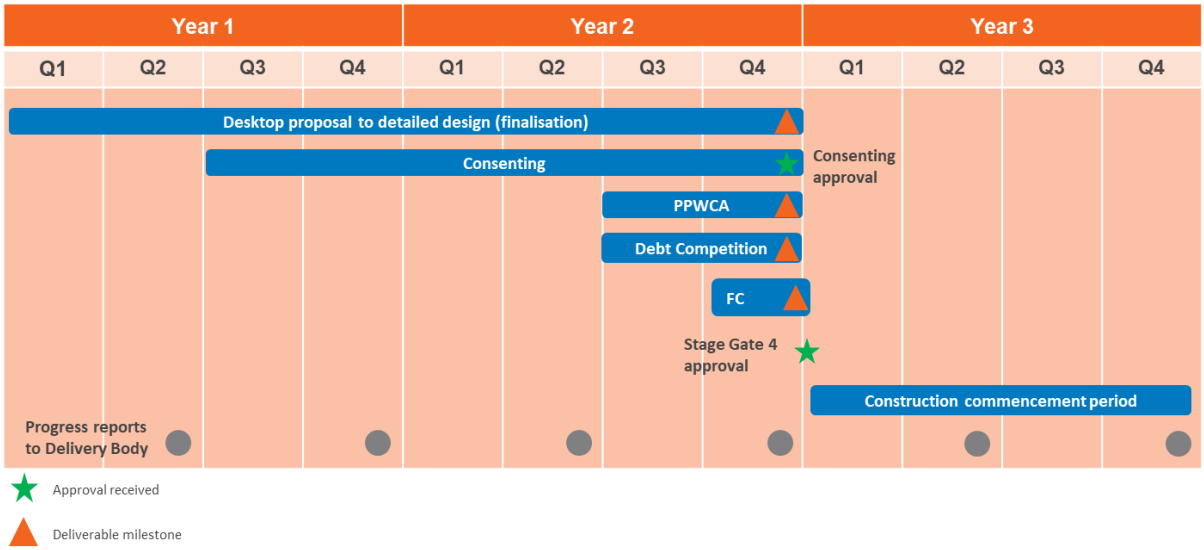


Figure 13. High-level illustrative preliminary works timeline

5.12 PPWCA process and governance

In the ECP, we said that PPWCA would occur towards the end of the preliminary works stage with the aim of fixing underlying costs prior to solution delivery. The high-level approach to PPWCA is set out in Section 4.3.

The PPWCA process will be carried out by Ofgem, with support as required by the ESO as Procurement Body.

Information relevant to the PPWCA stage will be shared with bidders in the pre-tender and bidding stages. In the pre-tender stage, the Procurement Body determines the cost categories to which the indices will be applied.

At the bidding stage, bidders will be provided with details of the PPWCA process, including indices to be used during the PPWCA (along with any proposed exchange rates).

During the post-tender stage, once the preliminary works phase has finished, the CATO (the successful bidder) will be required to submit to Ofgem any requests for increased costs along with the rationale as to why the CATO considers the increased cost 'reasonably unforeseeable' at the time they submitted their initial bid and that have arisen during the preliminary works phase. In submitting these requests, the bidder will be expected to provide sufficient evidence to allow Ofgem to make an informed decision.

All evidence submitted by the bidder will be reviewed, and Ofgem will consider each request and notify the CATO whether the increased cost has been accepted as one that was reasonably unforeseeable at the time of the bid.

Once all final requests for cost increases, on the basis that they were not reasonably foreseeable, have been determined, Ofgem will further scrutinise these requests to determine whether such costs are economic and efficient.

On a pre-determined date, all relevant unit costs will be indexed, and costs that have been deemed both reasonably unforeseeable at the time of the bid, and economic and efficient, will be aggregated. All costs below the stated cap will be permitted, and any amounts over the cap will not be allowed. In addition, the CATO will be expected to provide details of any cost savings incurred during the preliminary works phase and provide sufficient evidence for Ofgem to make an informed decision.

Should there be any disputes arising out of this process between the CATO and Ofgem, the disputes process of the relevant legislation will be followed. Consideration of whether an independent third-party assessment may be required will need to be further discussed and agreed with Ofgem.

5.13 Planning and Consenting

In the ECP, we said that the tenders for early competition will be launched after an indicative solution has been identified but before the initial design has been done and preliminary works including consenting, planning and surveys have been undertaken. In the ECP,[75] we said that planning and consenting will be undertaken as part of preliminary works, while the nature of the preliminary works will be dependent upon the solution which was successful. Planning and consenting remains the responsibility of the CATO.

During the implementation phase we have further developed thinking around:

- **The evidence that bidders can provide as mitigation to deliverability risk during the tender process.** The CSNP process is likely to consider option studies outlining the various technical solutions and/or route study areas for planning and consenting to arrive at the indicative solution. The bidder will be required to provide option studies outlining the various study areas they have considered to arrive at their proposed solution. This strikes the right balance between the level of evidence that bidders can provide at a reasonable cost, and the amount of information required by the Procurement Body to consider deliverability and consenting risks.
- **The technical capability in respect of planning and consenting during the tender process.** Bidders' technical expertise for planning and consenting will need to be evidenced at the PQ stage. Bidders will be required to identify and evidence the commitment of in-house or third-party planning and consenting expertise which in turn will evidence the bidder's capacity and capability to manage the process effectively, up to final planning and consenting approvals. Changes to the bidder's expertise would require approval by the Procurement Body and re-evaluation against the tender evaluation criteria.
- **Engagement requirements during the tender process.** The Procurement Body will inform statutory bodies and/or other relevant stakeholders such as Environment Agency, Natural Resources Wales, Scottish Environment Protection Agency, Natural England, NatureScot, Historic England, Cadw and Historic Environment Scotland, during the pre-tender stage of the need that will be competed. This is to provide an opportunity for the statutory bodies to identify high risk elements which may place deliverability of a bidder solution at risk. For clarity, the Procurement Body will not engage in a non-statutory or statutory consultation process on behalf of bidders or engage with local community stakeholders.
- **Appropriate incentivisation in the evaluation criteria**. To incentivise bidders to rely on predominantly desk-based studies for the early planning and consenting process, we will not explicitly award any bid evaluation benefit (i.e. higher score) to bidders who have commenced stakeholder engagement activities ordinarily forming part of the planning and consenting process.

[75] ECP, Section 4.4, p.57

5.13.1 Development of the ECP position

Options for planning and consenting

In the ECP we outlined that for early competition a tender will be launched after an indicative solution has been identified but before the initial design – including planning, consenting and surveys – has taken place. The evolving CSNP makes provision for additional optioneering that may be conducted for the indicative solutions. Given the early stage of competition, we consider that the planning and consenting process places significant risk on deliverability. The impact of these risks could result in escalating estimated costs, rejection of the preferred bidder's design, and delays to the ISD. All these impacts are a detriment to the value of early competition for the end consumer.

Recommendation

Bidders are required to provide option studies outlining the various technical solutions and/or planning and consenting corridors that were considered to arrive at the proposed solution without external engagement.

Options Considered

To address the consenting risks and increase the effectiveness of engagement with key consenting consultees, we have considered the pros and cons of several options for engagement. We anticipate that the development of the CSNP will notably reduce planning and consenting risk through its likely provision of a routing study area and specified network connection points. Planning and consenting however remains the responsibility of the successful bidder during the preliminary works stage. In all options there is a reliance on the developed route study areas from the CSNP as captured in the technical specification. The three options outlined below, consider when stakeholder engagement could occur and who should be the primary responsible party.

The options considered are as follows:

Option 1: Bidders are encouraged to conduct initial public consultation and desk studies to support their bid submissions.

Pros:

- Makes route selection more robust, further reducing the risk of challenge building on optioneering and studies from the CSNP.

Cons:

- Competing bidders may create mixed messages with the public or, in the worst case, sabotage each other's consultations.
- Expensive for bidders who are at risk of not winning the competition.
- If a comprehensive consultation is expected and sufficient time is allowed in the tender process, the procurement timelines will become long, onerous, and costly.

Option 2: Bidders are requested to "not conduct external engagement" until after tender award and rely solely on publicly available sources comprising known environmental, social-economic, and technical data (GIS mapping and other).

Pros:

- Desktop based studies on the potential technical options and corridors are likely to be sufficient for the Procurement Body to consider deliverability and consenting risks at this point.
- Reduces the risk of excessive consultation by multiple bidders on multiple solutions with the same set of stakeholders. This will reduce the reputational risk for both the bidder and the Procurement Body. It also reduces the risk of confusion among stakeholder consultees.
- Bidders would not be required to undertake costly stakeholder engagement which is likely to encourage more bidders to participate in early competition.

Cons:

- Route selection at bid stage does not consider stakeholder views beyond what has been considered as part of the CSNP process in determining the route study area.
- Any post-award changes pose a risk from a value for money perspective for consumers and would increase the reliance on the PPWCA.

Option 3: Bidders are required to channel all consultations through the Procurement Body during the tender process. The Procurement Body will consolidate all bidder requests, communicate the requirements to the market, collate market responses and return the responses to the bidder.

Pros:

- Provides an opportunity for a more controlled and centralised market engagement with the benefits of Option 1 but without the associated risk of confusion. The Procurement Body would be able to coordinate a more coherent message though a more defined process to the market.
- Provides an opportunity for the Procurement Body to identify high risk considerations beyond what has been established for the CSNP.
- Allows the Procurement Body to consider the likelihood of deliverability, which is a key criterion.

Cons:

- The Procurement Body is currently not established to manage such processes. It would need to quickly build consenting capability to fully take on the management of planning and consenting applications for the identified solution.
- Sharing of bidder's plans may require the sharing of information which bidders consider give them a competitive edge, creating potential legal risks. If detailed information can't be shared, the value of such engagement is likely to be limited.
- Bidder's may reflect risk in their bids to account for their reliance on the Procurement Body for non-statutory and statutory engagement.

Stakeholder feedback

Stakeholders generally highlighted the importance of optioneering early-stage designs to assess the planning and consenting implications. They also expressed that optioneering should be robust and well documented.

Stakeholders further highlighted that the identification of a sufficient number of corridors is likely to result in the approved solution coming from those corridors considered in the option study.

Preferred option

After considering the pros and cons of the three options, as well as the stakeholder feedback, the Procurement Body considers that Option 2 provides the best balance. The preferred position after further optioneering is to limit bidders to desk-based research and option studies. Bidder option studies will be limited within the geographic limitations set in the technical specification which is based on the indicative solution as derived from the CSNP.

This strikes the right balance between the level of evidence that bidders can provide at a reasonable cost, and the amount of information required by the Procurement Body to consider deliverability and consenting risks. It also ensures that the Procurement Body is not drawn into consenting activities on bidders' behalf during the tender process.

Bidders will be expected to submit a detailed planning and consenting strategy. This would set out how the bidder proposes to comply with statutory and regulatory requirements, including planning permission.

Engagement with statutory bodies during pre-tender stage

We have developed further thinking on the value of the Procurement Body engaging with statutory bodies pre-tender stage to partially mitigate the risks of deliverability associated with consenting activities.

The Procurement Body would seek to inform the statutory bodies and key stakeholders of impending procurement processes. Public consultation after the tender launch would not be anticipated until the CATO is in place.

The benefits of Procurement Body-led early engagement during the pre-tender stage would be three-fold:

- Key stakeholders can prepare and initiate their own internal processes by virtue of the Procurement Body communicating the need that will be tendered.
- Statutory bodies are provided an opportunity to identify high risk elements within the study area which may place deliverability of bidder solutions at risk.
- Opportunity to test the proposed tender documentation and bid evaluation guidance with statutory bodies alongside the technical specification.

We consider that this approach balances the need for some pre-tender engagement with statutory bodies and key stakeholders in the process against the risk of multiple bidders approaching various stakeholders causing confusion, and the risk of material changes post award which should not be permitted. The relevant key stakeholders to include will be dependent on the specified geographic location.

Stakeholder feedback

Stakeholders generally highlighted the vital importance of early engagement, but also highlighted the risk of bidders doing too much early engagement with local communities.

Stakeholders have also recommended that the ESO undertake some high-level proactive engagement with key statutory stakeholders ahead of launching an early competition tender for bids to be more informed.

Evidence of commitment of technical expertise at PQ stage

In the ECP we outlined the nature of the preliminary works and the various likely steps required as a part of preliminary works. These include consents and site surveys, as well as land rights and detailed design.

The primary purpose of the questions outlined in the evaluation criteria is to evidence the deliverability of the solution which in turn bolsters cost certainty. We are aware, and feedback from stakeholders has indicated, that planning and consenting is a high-risk aspect of the project delivery lifecycle. Technical expertise will be required to effectively provide evidence to a range of the technical evaluation criteria.

Recommendation

Bidders are required to identify and evidence the commitment, up to final planning and consenting approvals, of in-house or third-party planning and consenting expertise.

The ESO has also reflected stakeholder feedback and market engagement suggesting that project deliverability risks reduce considerably if bidders are required to ensure that planning and consenting expertise is identified at PQ stage of bidding and remains in place up to final planning and consenting approvals. We consider that there are several positives to this position. It will enable the ESO as the Procurement Body to ensure that the bidders have appropriate experience, capacity, and capability to manage the planning and consenting process effectively. It will also reduce the risk of deliverability issues arising if there are changes or loss of planning and consenting expertise following preferred bidder award, which in turn reduces overall deliverability risk.

Consequently, we have developed our thinking and adopted the position that bidders will be required to provide evidence of committed planning and consenting expertise at the PQ stage. This position

mitigates some planning and consenting risk, ensures continuity intrinsic to the bidder and consequently mitigates deliverability risk.

It is also expected that changes to the in-house or third-party planning and consenting expertise will need to be approved by Ofgem which will not unreasonably be withheld. Similarly, the Procurement Body would have to approve changes during the procurement process. Changes to the bidder expertise would however be subject to a resubmission of the planning and consenting bid component.

Stakeholder feedback

Stakeholders highlighted the need for consultants with planning and consenting expertise to be present throughout the planning and consenting process.

The planning and consenting process will continue post pre-tender stage, with key consideration points outlined in Figure 14 below.

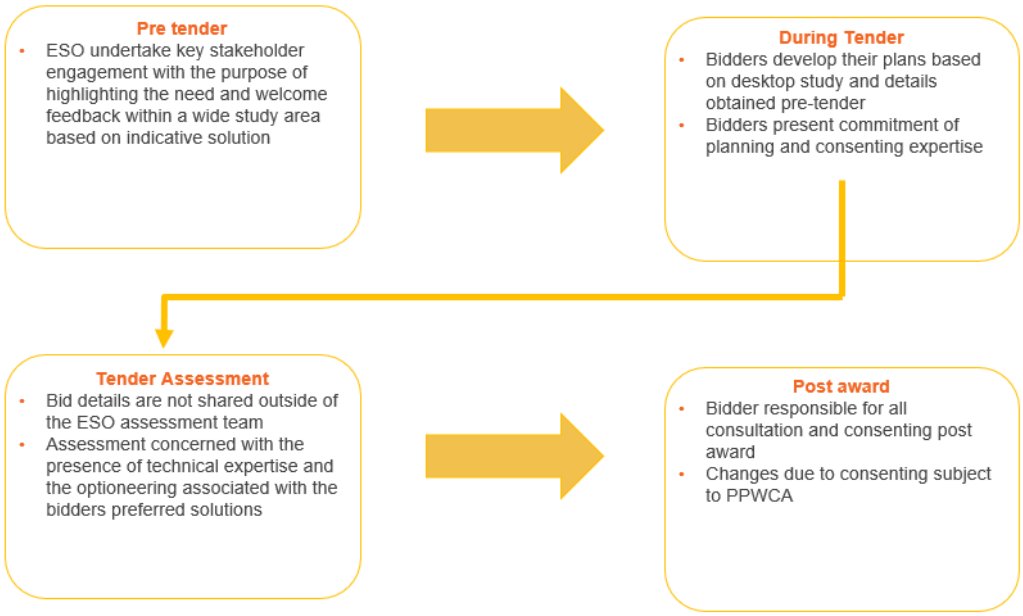


Figure 14: Planning and consenting considerations

5.14 Commissioning and compliance

In the ECP, we recommended that compliance with industry codes will generally entail a self-certification process by the CATO. However, it also introduces the possibility of the ESO reviewing compliance-related documentation and conducting witness testing as part of the commissioning process. Furthermore, the ECP emphasises the preference for alignment with existing industry codes. This preference arises from the established and widely accepted nature of these provisions by market participants, as well as the familiarity of incumbent TOs with their roles and legal obligations when collaborating with other TOs or system users.

During the implementation phase, our primary focus has been to identify and refine our approach to ensuring a compliant interface design, one that incorporates elements of standardisation. This approach is designed to prevent any value leakage of the benefits associated with competition. To clarify, value leakage of benefits could happen if there are additional interface requirements beyond what would typically be implemented if a TO were to deliver the projects themselves. For example, these additional interface requirements might involve installing extra equipment, which would not only raise the capital cost of the CATO but also increase the TRS.

Below we set out our proposed updates to the ECP position and the key assumptions made at this stage for the purpose of further developing or changing the ECP position.

Key Assumptions

- Tariff metering equipment will not be required at CATO-TO interface
- The interface design process and obligations will be standardised through code modifications.

5.14.1 Development of the ECP position

The ECP position on commissioning and compliance has been developed through the code change process. Note that this code change process is ongoing.

Interface standardisation

Due to the lack of standardisation across the GB NETS, there are different requirements across the TOs on the connection design at the interface point.

In some circumstances, this may result in a CATO being required to install additional plant and equipment that an incumbent TO would not be required to install if they were expanding their own network.

The four following high-level options were considered to manage the potential value leakage that may occur at the interface:

Option 1: Maintain the status quo

- This option would rely on existing provisions for interface negotiation and general practices where they have not been codified.
- The CUSC interface agreement will likely serve as a baseline for negotiations.
- The lack of standardisation is likely to result in cost uncertainty for bidders, as each interface will be tailored to the incumbent TO and costs of the design will only be established during the preliminary works phase.

Recommendation

The Successful Bidder and TO will collaboratively develop an interface design through agreed processes that is best value for consumers.

- Variability in the preferred interface design of different TOs makes it challenging for CATOs to accurately price their bids. This may lead to either the need for additional equipment, along with associated cost implications, or CATOs pricing additional equipment that may not be required.
- Inability to accurately price the interface can result in bids that are incomparable, as indicated by the likely impact mentioned earlier.
- With an increasing number of CATOs in a competitive environment, maintaining the existing process will introduce cost uncertainty and potentially erode benefits of competition due to interface costs.

Option 2: Mandate additional equipment installation by the CATO. Define a standard requiring electrical isolation between CATO and TOs.

This option would necessitate the CATO to incorporate supplementary equipment when connecting to incumbent TO assets. Ordinarily, TOs might not include this additional equipment if they were responsible for delivering the asset.

Key considerations for this option include:

- **Standardisation Requirements:** Implementing a standardised interface would necessitate changes to industry codes.
- **Capital Expenditure (Capex):** The introduction of additional equipment by the Successful Bidder could lead to increased capex costs.
- **Cost Certainty:** Standardising the process can provide cost certainty, enabling bidders to accurately price their proposals.

- **Impact on Innovation:** Specifying the use (or non-use) of equipment may have implications for innovation and technology transfer within the industry.

Option 2 introduces a structured approach to interface standardisation, potentially offering financial predictability but requiring careful consideration of its impact on innovation and associated code modifications.

Option 3: No mandate for additional isolators, but a requirement to ensure enhanced operational collaboration between parties. Define a standard requiring the same electrical isolation as TOs would implement if they delivered and operated the asset (mimicking TO interface design)

In this option:

- **No Compulsory Additional Isolators**: There is no obligation for CATOs to install extra isolators.
- **Emulating TO Approach:** The approach mirrors the one TOs would adopt for interface design if they were responsible for asset delivery.
- **Standardisation Considerations:** It is important to note that standardising the interface will necessitate modifications to industry codes.
- **Complex Responsibility and Ownership:** Determining clear boundaries for responsibility and ownership becomes more intricate when compared to Option 2.
- **Enhanced Outage Planning Engagement**: More extensive engagement in outage planning is required in comparison to Option 2.
- **Lower Capex Costs**: This option typically results in lower capital expenditure costs when contrasted with Option 2.
- **Innovation Limitations**: Specifying the use (or non-use) of equipment may potentially limit innovation in the industry.

Option 3 offers a pathway that maintains flexibility regarding additional isolators while striving to achieve alignment with TO practices. This approach entails lower capital costs but requires careful consideration of code changes and increased engagement between parties for successful implementation.

Option 4: Establish a process for interfacing parties to collaboratively determine the most economically advantageous solution while ensuring compliance with relevant codes.

In this option:

- **Collaborative Selection Process:** Parties, both TOs and CATOs, would adhere to an established process to mutually determine the most cost-effective interface solution.
- **Preventing Imposition of Costly Standards**: This process would safeguard against the potential for TOs to impose expensive, potentially unnecessary standards on CATOs.
- **Equal Engagement:** CATOs and TOs, both acting as licence holders, would engage on equal terms.
- **Cost Uncertainty**: Despite this approach, cost uncertainty may persist, potentially necessitating risk pricing by bidders. This could result in reduced value for consumers. Higher costs may be limited, should a cap be implemented, while lower costs could be addressed through downward adjustments.
- **Consumer Value:** The provided guidance and established process should aim to achieve the most economically advantageous outcome without negatively impacting the tender process.

Option 4 as the preferred option proposes a collaborative approach that seeks to balance cost-effectiveness and compliance, but it may not fully eliminate cost uncertainty. It emphasises equitable engagement between parties and strives for the highest consumer value without disrupting the tender process. This process allows the CATO and TO to collaboratively develop an interface design that is best value for consumers while safeguarding them from undue costs, all while adhering to the relevant codes.

Stakeholder feedback

Stakeholders have been engaged in respect of option 4 and is considered the preferred approach. This preference will be incorporated into the relevant codes, with code modifications detailed in Appendix C of this document.

The following codes encompass the necessary adjustments associated with the CATO-TO interface:

- System Operator Transmission Owner Code (STC), Section D – Planning Coordination
- STCP 19-7 CATO-TO Connections Operational Notification & Compliance Testing
- STCP 18-5 CATO-TO Connections

Moreover, the interface site data appendix in the technical specification will indicate the required level of isolation. Any other pertinent considerations that may impact bidder solutions in terms of cost will also be included in the interface site data appendix. These determinations will be made during the preparation of the technical specification.

6 Cost recovery

In the ECP, we recommended that the ESO take on the Network Planning Body, Payment Counterparty and Procurement Body roles.

We set out our initial thoughts on the enduring costs, remuneration and incentives which would need to be in place for the ESO. The proposals set out in the ECP had not been tested with stakeholders or customers as further clarity from Ofgem and DESNZ was required.

The ECP summarised the key costs the ESO would be exposed to[76], the key risks each role would require to be managed[77] and whether these were comparable to the current risk exposure as RIIO-2 activities[78].

The ECP[79] then considered the different remuneration options set out in RIIO-2 including cost pass-through, Regulated Asset Value ("RAV"), non-RAV and then explored potential remuneration options for the Procurement Body role (section 8.2.2 of the ECP) as this posed significant changes in risk and cost to activities the ESO currently undertakes. The ECP concluded that the payment counterparty and network planning body roles should be recovered on a basis consistent with the RIIO-2 arrangements i.e. pass-through with a capped demonstrably inefficient and wasteful expenditure ("DIWE") retrieved via TNUoS/BSUoS.

Since the ECP was published there has been further clarity in terms of the future of the ESO as the ESO and confirmation that the ESO will become a public corporation.[80] There is still work ongoing to determine the financial and regulatory framework for the ESO. Once this is finalised, further consideration can be given to the cost recovery mechanism for the ESO for early competition. However, for completeness we have set out our further thinking on the options and what we consider to be the preferred position at this stage.

Recommendation

The Procurement Body role is remunerated through an annual cost pass-through framework.

6.1 Development of the ECP position

Since the ECP, Ofgem has said it intends to introduce tender regulations as part of the early competition framework. Ofgem sought ESO's view on whether the cost recovery approach for early competition could be aligned with the approach used for the OFTO model (a form of very late competition where Ofgem is the procuring authority). This would result in tender regulations that would build on the regulations for the OFTO programme rather than the approach recommended in the ECP.

As part of the EC-I process we have considered five different funding options through which the ESO could recover its costs as the Procurement Body. These options include bidders paying rather than consumers paying through price controls. These were largely considered in relation to the timing of activities and cost of carrying out the tender for the ESO and bidders.

For early competition there are two important differences from the OFTO model.

- The OFTO model is a form of late competition, has a developer (e.g. Offshore wind farm developer) who is required to place securities. For early competition, there is no developer to recover costs from or to provide upfront security in the event of tender failure.
- In the OFTO regime, the successful bidder (from whom the procurement body, Ofgem, recovers their tender costs) starts to receive revenue after handover and commissioning. The early competition process post-award has a long-lead time ahead of revenue commencement as (aside from preliminary works payments (Section 4.2)) the Successful Bidder does not receive any revenue until commissioning. Timing of revenues for the Successful Bidder is important for ESO cost recovery as the Successful Bidder is a primary source of potential funds under the majority of the options we considered.

[76] ECP, Section 8.1.2, p.147
[77] ECP, Section 8.1.3, p.149
[78] ECP, Section 8.1.4, p.153
[79] ECP, Section 8.2, p.155
[80] https://www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/future-system-operation-ESO

In our consideration of cost recovery, we considered five options (set out below). Four of these were based on the OFTO model of cost recovery and the first four are presented in

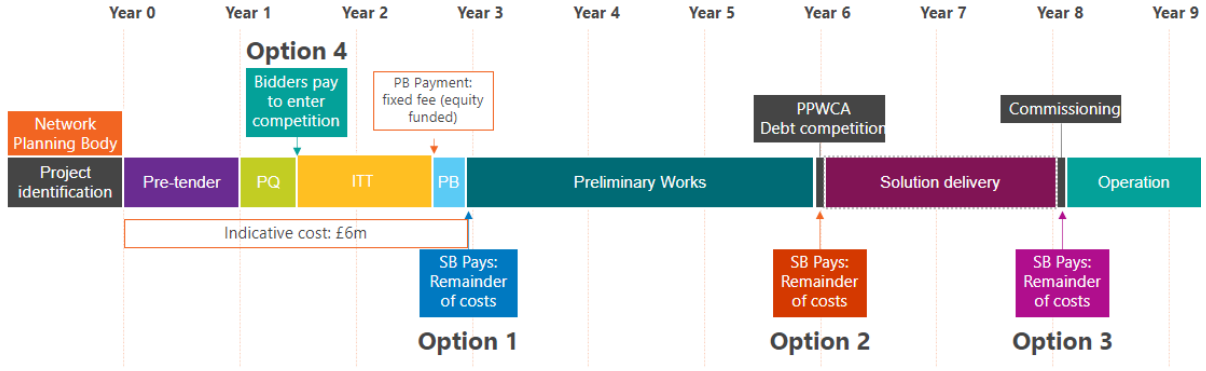


Figure 15.

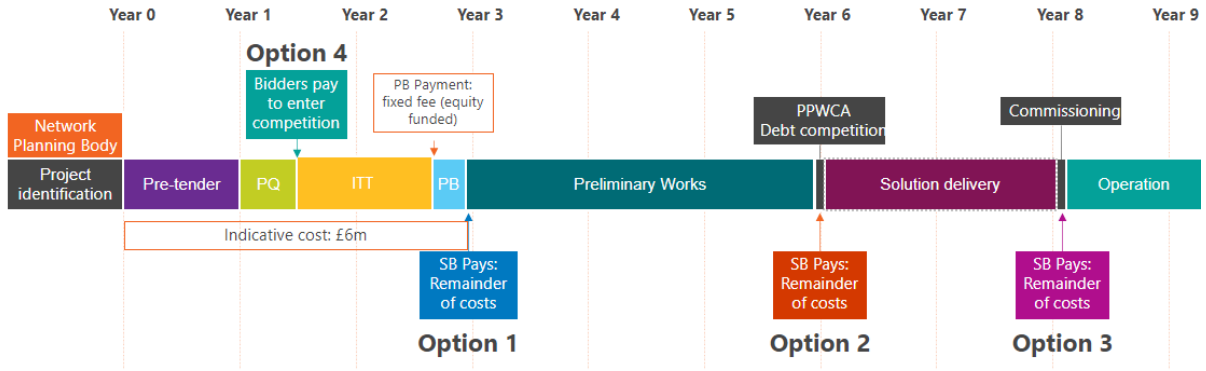


Figure 15. Cost recovery options

Option 1 – OFTO model

Once identified the preferred bidder pays a lump sum (£250k under OFTOs) and when the successful bidder is confirmed they pay the remainder of the estimated costs of running the procurement based on an estimate provided by ESO as part of the tender.

This is consistent with the OFTO model and does not require material changes to the regulatory framework. However, the Successful Bidder will not reach financial close until the PPWCA and will need to finance this payment entirely through equity which will impact consumer value. The ESO will also be exposed to any mismatch in costs between the estimate and the outturn.

Option 2 – Preferred Bidder payment and Successful Bidder pays at Financial Close

Under this option the Successful Bidder payment is not charged to the Successful Bidder until Financial Close following the PPWCA and debt competition as this is when the Successful Bidder will have capital to be able to fund the payment. The Successful Bidder payment would include the pre-tender and tender costs and therefore the ESO would need to finance all these costs until the debt competition has been concluded (minus the fixed payment by the Preferred Bidder).

This option is consistent with the OFTO model and does not require material changes to the existing regulatory framework. The Successful Bidder can fund the payment through the debt competition capital raising exercise based on the estimated value provided to it by the ESO as part of the tender pack. This will reduce cost to consumers as not entirely equity funded and risk to Successful Bidder reduced.

The Successful Bidder will, however, still accumulate debt costs associated with this until commissioning. The ESO will have to finance costs for the tender during the preliminary works period which could be up to five years depending on the consenting strategy.

Option 3 – Successful Bidder payment held until commissioning

As with options 1 and 2 the ESO would provide an estimate and cover costs but under this option the Successful Bidder will pay following commissioning and could use a mixture of capital and revenues to fund this payment.

As with options 1 and 2 this is consistent with the OFTO model in terms of bidder paying post-award and does not require material changes to the ESO's regulatory framework. This option limits the risk to consumers of Successful Bidder's pricing in additional risk into their bid.

However, the exposure of the ESO is material under this option and consumers may have to remunerate the ESO for the finance costs associated with holding those costs for a material period (c.7-9 years). There is also a risk of delay impacting ESO's finance period under this model as the preliminary works and construction phases may be subject to delays entirely outside of the control of the ESO.

The Successful Bidder will likely still need to finance some of the payment obligations to the ESO as the TRS will need to partly service other commitments and also may not be sufficient to cover the entirety of the payment to the ESO.

There is also a question about efficiency and transaction costs with this option. As the payment counterparty we will collect revenues through TNUoS and BSUoS, make payments to the Successful Bidders and then the Successful Bidder will make a payment to the ESO.

Option 4 – Bidders pay to enter the competition

The OFTO regulations include a provision where bidders can pay to enter the competition. This option has the benefit to the ESO of not being required to finance the cost of the tender process and being a feasible option under the existing regulatory framework.

However, this would significantly increase the costs to bidders of entering the competition. Bidders may be less attracted to this opportunity, and it may therefore impact the competitiveness of the tender. The concern is especially pertinent given the new, novel, and untested nature of early competition. Bidders who do decide to bid will price this additional risk into their expected returns which will not deliver value for consumers.

Option 5 – Pass-through annual payment

This option would be a pass-through cost like the rest of the current ESO regulated revenue framework.

This approach is aligned with RIIO-2. The ESO would be able to recover costs in-year through TNUoS, as they are incurred. It is possible that the ESO may need to use a working capital facility ("WCF") to manage any mismatch between the estimated cost and the actual cost, but this is likely to be a small proportion of costs. A reconciliation would occur on an annual basis to limit exposure.

The benefit of pass-through costs is that there is a reduced exposure of the bidders and the ESO. We acknowledge that the costs would be spread over a smaller time duration (recovered in-year rather then recovered by the bidder over the revenue period years). The pass-through proposal is consistent with operating costs of TOs and the ESO which are incurred in year. Our estimates of £1-2m per annum are small relative to total BSUoS and TNUoS costs and therefore there should not have a notable impact on consumer bills.[81]

With this approach, the ESO would be able to recover its costs regardless of what happens to the tender process (e.g. if the tender process failed or if the Successful Bidder contract is terminated/ Successful Bidder licence is revoked prior to commissioning).

Any incentives on the ESO would need to be developed further as part of the overall development of the ESO regulatory framework.

Based on the work carried out to date, we consider a pass-through annual payment model (i.e. option 5) is the most appropriate model for funding the ESO work for early competition.

Once the ESO workstream has further progressed and there is greater understanding of the corporate financial structure, legal ownership arrangements and regulated revenue framework the cost recovery arrangements for early competition will need to be reconsidered. In addition, the current development

[81] For 2022/23, the total TNUoS costs to recover are £3,594m, Final TNUoS Tariffs for 2022/23, National Grid ESO, January 2023

work happening on the FSNR will also have an impact on the regulatory framework which will need to be considered in the context of early competition.

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