Decision and updated policy position on the onshore electricity transmission Early Competition commercial framework

Publication date:	02-07-2025
Response deadline:	02-12-2024
Contact:	Tahawar Hussain, Senior Policy Lead
Team:	Onshore Competition
Email:	OnshoreCompetitionsPolicy@ofgem.gov.uk

In October 2024 we consulted on the National Energy System Operator's (NESO)[1] proposed commercial framework for onshore electricity transmission projects to be competitively tendered under the Early Competition regime.

The commercial framework refers to the commercial arrangements that will apply to a Competitively Appointed Transmission Owner (CATO) to finance, build, operate and maintain assets on the electricity transmission network.

This document sets out our decision and updated policy position on the commercial framework following consideration of all responses to the consultation. The commercial framework will be implemented through the CATO electricity transmission licence and as such final decisions on the implementation mechanism of certain elements of the commercial framework will be made when we consult on the details of the CATO licence later this year.

[1] Designation of the National Energy System Operator (NESO) - GOV.UK (www.gov.uk): NESO was established on October 1st 2024. Prior to that it was known as the National Grid Electricity System Operator (NGESO). We have used NESO throughout this document when referring to its activities undertaken while still referred to as NGESO.

Any enquiries related to the text of this publication should be sent to Ofgem at:

10 South Colonnade, Canary Wharf, London, E14 4PU.

This publication is available at www.ofgem.gov.uk. Any enquiries regarding the use and re-use of this information resource should be sent to: psi@nationalarchives.gsi.gov.uk

Contents

Decision and updated policy position on the onshore electricity transmission Early Competition commercial framework 1

Executive Summary 5

1. Introduction 7
Background 7
What we consulted on 8
Context and related publications 9
Our decision-making process 10
Decision-making stages 10
General feedback 10

2. Post-award security obligation 11
Background 11
Consultation position 11
Summary of consultation responses 12
Decision and updated policy position 12
Rationale for our decision and updated policy position 13

3. Preliminary works payments 16
Background 16
Consultation position 16
Summary of consultation responses 17
Decision and updated policy position 17
Rationale for our decision and updated policy position 18

4. Post Preliminary Works Cost Assessment (PPWCA) 21
Background 21
Consultation position 21
Summary of consultation responses 22
Decision 23
Rationale for our decision 23

5. Payment mechanism and performance incentives 26
Background 26
Consultation position 26
Summary of consultation responses 27
Decision and updated policy position 28
Rationale for our decision and updated policy position 29

6. Additional works obligation 34
Background 34
Consultation position 34
Summary of consultation responses 36

Decision and updated policy position 37
Rationale for our decision and updated policy position 38

7. Revenue period 41
Background 41
Consultation position 42
Summary of consultation responses 42
Decision 43
Rationale for our decision 44

8. Conclusion and next steps 48

Executive Summary

The introduction of competition into the development of onshore electricity transmission reinforcements is a key step towards fostering innovation, improving cost efficiency and attracting new investment into Great Britain's energy infrastructure. We consider that a dynamic, delivery focused competitive environment will facilitate the timely and cost-effective achievement of our decarbonisation and Net Zero goals.

The promotion of Early Competition in onshore transmission is a key priority in our 2024–25 Forward Work Programme with the UK Government also endorsing this approach, particularly for projects anticipated beyond 2030, given that the competitive processes will not hinder the timely delivery of critical infrastructure under the Clean Power 2030 Action Plan.[2]

The National Energy System Operator (NESO) has developed a commercial framework to underpin the Early Competition regime. This framework outlines the terms under which a Competitively Appointed Transmission Owner (CATO) will be responsible for financing, constructing, operating and maintaining transmission assets. It includes a range of mechanisms such as incentive structures, re-pricing model, payment arrangements and post-award obligations.

In reaching our decision, we have carefully considered the stakeholder feedback to our October 2024 consultation[3] to ensure a balance between consumer protection and the commercial appeal necessary to attract capable and competitive bidders, ensuring ongoing value for money. We will implement the commercial framework through the CATO electricity transmission licence and final decisions on the legal and implementation mechanism of a few individual elements of the commercial framework will be made when we consult on the details of the CATO licence later this year.

To ensure consumer benefit, it is essential to maximise competitive tension throughout the process. We acknowledge that certain project-specific factors may occasionally require adjustments to the standard commercial framework, especially for the initial projects to be competitively tendered. In such cases, we will engage with market participants ahead of tender launch to ensure that the framework remains robust, commercially viable and aligned with the overarching goal of delivering best value for consumers.

[2] Clean Power 2030 Action Plan: A new era of clean electricity – main report - GOV.UK
[3] Consultation on the onshore electricity transmission Early Competition commercial framework | Ofgem

The Early Competition commercial framework has been informed by extensive engagement with relevant industry stakeholders by NESO and us throughout its development. We remain open to further engagement with any parties interested in participating in the competitive delivery of onshore electricity transmission projects. Continued collaboration will be key to refining the framework and ensuring its success in delivering a more efficient, innovative and consumer-focused energy system.

Beatrice Filkin

Director, Major Projects

1. Introduction

Section summary

This section introduces the commercial framework for Early Competition in onshore electricity transmission. It explains what we consulted on, provides links to related publications and describes our decision-making process.

Background

1.1 The Early Competition model refers to a competition to determine a solution to a need on the network that is run before detailed design of the preferred solution has been carried out. It encourages cost efficiencies and additional innovation in the design, delivery and operation of transmission infrastructure which consumers will benefit from.

1.2 The Energy Act 2023 enabled Ofgem to make the Electricity (Early-Model Competitive Tenders for Onshore Transmission Licences) Regulations 2025 ('the Tender Regulations'), which set out a competitive tender process for the granting of an onshore electricity transmission licence to a successful bidder, and in 2024 the Electricity (Criteria for Relevant Electricity Projects) (Transmission) Regulations 2024 ('the Criteria Regulations') were passed into legislation, setting out the qualifying criteria for onshore projects to be competitively tendered. The Tender Regulations, which commenced in April 2025, establish the roles, responsibilities and process to be followed when undertaking a competitive tender. This means that the full legislative framework governing onshore competition is now established.

1.3 The Early Competition commercial framework, developed by the National Energy System Operator (NESO), refers to the commercial arrangements that will apply to a Competitively Appointed Transmission Owner (CATO)[4] to finance, build, operate and maintain assets on the electricity transmission network. The commercial framework, which includes various incentives, re-pricing model, payment mechanism and post-award obligations on a CATO, intends to balance the protection of consumer interest with attractiveness to potential bidders, fostering competition and maintaining competitive pressure post tender award.

[4] A CATO refers to a holder of an onshore electricity transmission licence in respect of a qualifying project that is granted as a result of a tender exercise run under the Electricity (Early-Model Competitive Tenders for Onshore Transmission Licences) Regulations 2025.

1.4 This document sets out our decision and updated policy position[5] on NESO's proposed commercial framework for onshore electricity transmission projects to be competitively tendered under the Early Competition regime. We sought stakeholder views through a consultation published in October 2024.[6] Stakeholder responses and further stakeholder engagement have informed the decision and updated policy position set out in this document.

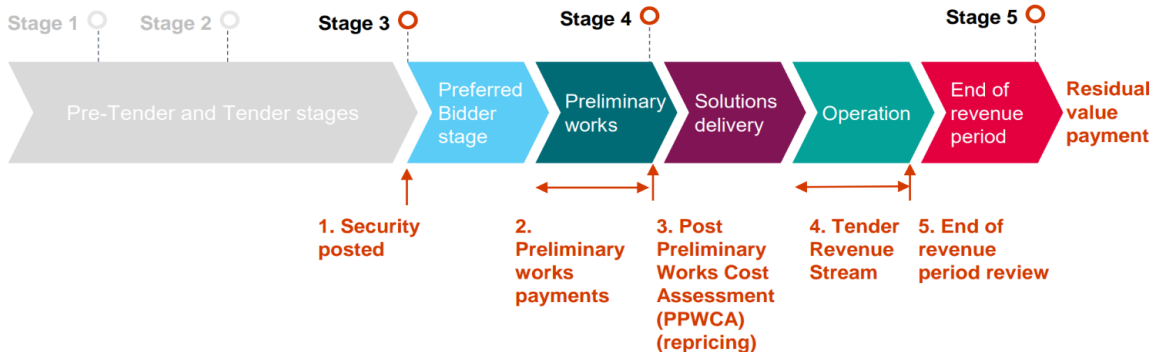
What we consulted on

1.5 We consulted on the following components of the Early Competition commercial framework. Further details regarding these components of the commercial framework can be found in our consultation document:

- **Post-award security obligation**: Chapter 2 details our decision and updated policy position on the payment of security by a CATO during the preliminary works and construction stages
- **Preliminary works payments:** Chapter 3 details our decision and updated policy position on payments to a CATO during the preliminary works stage
- **Post Preliminary Works Cost Assessment (PPWCA):** Chapter 4 details our decision on managing cost adjustments between bid submission and completion of the preliminary works stage
- **Payment mechanism and performance incentives:** Chapter 5 details our decision and updated policy position regarding payments to a CATO and performance incentives during the operational stage post commissioning
- **Additional works obligations:** Chapter 6 details our decision and updated policy position on CATOs undertaking additional works on their assets beyond the scope of work originally tendered
- **Revenue period:** Chapter 7 details our decision on the revenue period and the next steps following the end of the revenue period

[5] Some elements of the commercial framework intend to be implemented through the relevant licences (eg the process of holding and handling of the post-award security obligation (chapter 2)) and as such final decisions will be made as part of those licence consultation processes.
[6] Consultation on the onshore electricity transmission Early Competition commercial framework | Ofgem

Figure 1: Components of the commercial framework



Context and related publications

1.6 Other publications related to this consultation include:

- Ofgem, Decision on early competition in onshore electricity transmission networks, March 2022
- Ofgem, Decision on Early Competition in onshore electricity transmission networks: policy update, July 2024
- The Electricity (Criteria for Relevant Electricity Projects) (Transmission) Regulations 2024, March 2024
- The Electricity (Early-Model Competitive Tenders for Onshore Transmission Licences) Regulations 2025
- Modifications to the special licence conditions in the electricity transmission licences: Early Competition in Onshore Electricity Transmission - Decision | Ofgem, April 2025
- Modifications to the Electricity System Operator Licence: Early Competition in Onshore Electricity Transmission | Ofgem, May 2025
- Ofgem, Consultation on the onshore electricity transmission Early Competition commercial framework, October 2024
- Department for Energy Security and Net Zero, Transmission Acceleration Action Plan, November 2023
- Energy Act 2023, October 2023
- Electricity Act 1989, July 1989
- National Energy System Operator, Early Competition Plan, April 2021

- National Energy System Operator, Early Competition - Implementation (EC-I Update), February 2024

Our decision-making process

1.7 Our consultation opened on 21 October 2024 and closed on 2 December 2024. We received 17 responses to the consultation. Three responses from the incumbent TOs and 8 responses were received from transmission companies with an interest in onshore competition. Responses from the industry including a supplier, equity investors and general public were also received. The non-confidential responses have been published on our website.

Decision-making stages

Date	Stage description
21/10/2024	Stage 1: Consultation open
02/12/2024	Stage 2: Consultation closed, deadline for responses
December/2024 – June/2025	Stage 3: Responses reviewed & further engagement
02/07/2025	Stage 4: Consultation decision

General feedback

1.8 We believe that consultation is at the heart of good policy development. We are keen to receive your comments about this report. We would also like to get your answers to these questions:

1. Do you have any comments about the overall quality of this document?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Are its conclusions balanced?
5. Did it make reasoned recommendations?
6. Any further comments

1.9 Please send any general feedback comments to stakeholders@ofgem.gov.uk

2. Post-award security obligation

Section summary

This section sets out our decision and updated policy position regarding the posting of security by a CATO upon the award of a transmission licence following respondent feedback.

Consultation question(s)

Q1. Do you agree with NESO's proposed approach to a CATO's post-award security obligation?

Background

2.1 The post-award security obligation is a mechanism designed to mitigate the risks associated with project failure or non-delivery by requiring successful bidders (CATOs) to provide financial security. This obligation is structured to protect consumers from the financial consequences of a CATO abandoning the project, while simultaneously retaining an incentive on the CATO to deliver the project on time and to specification.

Consultation position

2.2 In our consultation, we provided an overview of the post-award security obligation proposals as developed by NESO and sought stakeholder views on the proposed level of security, acceptable forms of security and the proposal of tapering off security as the CATO makes capital investments in the project. Further detail of our consultation position can be found in chapter 2 of the consultation document.[7]

2.3 The policy intention for posting security upon award of a transmission licence is to protect consumers by disincentivising the CATO from walking away following what would be an extended preliminary works period, ultimately ensuring there is a cost to the CATO of non-delivery which in turn reduces the cost of non-delivery to consumers.

2.4 We considered setting security at 10% of the submitted construction costs to be appropriate in balancing risks between CATO and consumers and sought stakeholder views on this amount.

[7] Consultation on the onshore electricity transmission Early Competition commercial framework: Chapter 2

2.5 We further considered tapering off security to 0% once the CATO has invested an amount equivalent to the proposed security level in the project to be a fair and reasonable relief to potential bidders while protecting consumers against the risk of a CATO walking away from the project.

2.6 We considered the diversity in acceptable forms of security such as performance bond, letter of credit, Parent Company Guarantee (PCG) as proposed by NESO to be reasonable from a level playing field perspective and sought stakeholder feedback.

Summary of consultation responses

2.7 While agreeing with the need and rationale for the post-award security obligation, respondents raised concerns regarding the proposed level of security at 10% of the forecast construction costs. Several respondents considered 10% to be too high and expressed concern that it might deter bidders by creating a barrier to entry and thereby reduce the bidding pool and increase costs to bidders.

2.8 Suggestions for an appropriate level of security included setting at 5% of the submitted Capital Expenditure (CAPEX), fixed at a maximum value of £50 million, and lower of a fixed percentage cap or 30% of constraint costs in line with the obligation on the Transmission Owners (TOs). However, an incumbent TO regarded 10% to be too low as it could be outweighed by reasonably foreseeable cost increases at the Post Preliminary Works Cost Assessment (PPWCA) stage and therefore could encourage the CATO to walk away from the project.

2.9 One respondent raised concern around the necessity of posting security and thought bidding and preliminary works sunk costs may already be sufficient to encourage the CATO to remain. In addition, 3 respondents highlighted that the reputational harm of walking away from the project would provide a strong incentive on a CATO to deliver the project.

2.10 Four respondents disagreed with tapering off the security during the construction phase and suggested to align the tapering off with the preliminary works phase.

2.11 Concerns were also raised around the bond market being currently limited and expensive, thus increasing risk to bidders which could ultimately cost consumers. Four respondents also requested further clarity on handling arrangements of the security obligation.

Decision and updated policy position

2.12 We have decided to set the level of post-award security obligation equal to 10% of the forecast construction costs submitted by the CATO, capped at a maximum

value of £50 million for projects up to £1 billion[8] in value. Where a project's value exceeds this threshold of £1 billion, an appropriate level of security will be set on a project-by-project basis by taking factors like project complexity and market conditions into account. The security requirement will remain in place during the preliminary works stage and construction stage, and be tapered down to 0% once the CATO has invested an amount equivalent to the security posted in the project. The legal mechanism for security handling / management will be part of the generic CATO licence (and potentially the NESO licence, see para 2.14 below). We will consult further on the details of implementation mechanism of the security proposal as part of the licence consultation process.

2.13 We consider acceptable forms of security would include a (potentially conditional) letter of credit or a performance bond (related to payment instead of performance) from an institution with an acceptable credit rating, or alternatively cash in escrow with each being claimable in the event of electricity transmission licence revocation. If a PCG is submitted by the CATO, our current view is that Ofgem would set the minimum level of creditworthiness for the parent company, similar to that set out in the Electricity Transmission Standard Licence Conditions[9] and retail financial resilience acceptable credit support for suppliers,[10] and review the document to ensure it is unconditional.

2.14 Our current view is also that being the Delivery Body and the System Operator, NESO should be the body responsible for handling / managing the security posted by the CATO post-award. This provision would require modification to the NESO licence, and we intend to consult further on the details of this proposal at the same time as we consult on the generic CATO licence. Securities could be called upon based on the term of their arrangement in the event of a CATO choosing to terminate or walk away from the project. Detailed forms of security can be developed and agreed during the pre-tender stage.

Rationale for our decision and updated policy position

2.15 We have considered a range of factors in reaching our decision to set the level of post-award security obligation equal to 10% of the forecast construction costs.

2.16 We are driven by our primary duty of consumer protection and the need to ensure that the risk of tender failure and subsequent late or non-delivery of a

[8] Using the RIIO-3 price base
[9] Electricity Transmission Standard Licence Conditions 19 10 2021
[10] Decision on Strengthening Financial Resilience | Ofgem

required network solution is mitigated as much as possible. It is of critical importance to protect consumers from a CATO walking away with the potential need to re-tender or appoint a CATO Of Last Resort (CATO OLR)[11] which can cause delays and are likely to drive material additional cost to consumers. This is particularly critical for the initial CATO tenders, as such circumstances could seriously undermine the regime. A financial investment in the form a security at the preliminary works stage can incentivise the CATO for timely delivery and transfer some risk of non-delivery away from consumers.

2.17 We consider it appropriate that in the first instance, the security obligation should be equal to 10% of the forecast construction costs. Under the Early Competition regime, it is necessary to protect consumers by placing this obligation on the CATO. As stated earlier, in the absence of such an obligation, consumers would be forced to bear the cost of replacing a CATO if it decided to walk away from the project. The post-award security obligation provides a necessary incentive to the CATO to see the project through to completion and therefore reduces the consumer risk exposure. This requirement is in line with the amount a Special Purpose Vehicle (SPV) is likely to demand from a construction contractor to provide as security, which is usually of a magnitude to allow the SPV to replace the contractor or cover delay. The market is already familiar with the size of the security and setting it at the determined level is manageable for the market.

2.18 At the same time, we acknowledge that for projects of very large value, the 10% security level may inhibit a wide pool of bidders from entering the competition. Therefore, our decision to cap this obligation at a maximum value of £50 million (for projects up to £1 billion in value where 10% of the forecast construction costs is likely to exceed this amount) will allow for the necessary competitive tension to drive optimal results for consumer benefit while acknowledging the stakeholder feedback to our consultation. In effect, this means that for projects ranging between £500m - £1bn in value, which is a typical range for large onshore transmission projects, the level of security obligation scales down from 10% to 5% in a linear manner.

2.19 We have taken note of the feedback that reputational impact constitutes an important factor for bidders and is a potential deterrent from abandoning a

[11] Ofgem, Decision on Early Competition in onshore electricity transmission networks: policy update, July 2024: Chapter 6

project. We agree that this is a relevant factor. However, we have also observed the recent discontinuation of awarded offshore wind projects under the Contracts for Difference (CfD) regime by reputed project sponsors.[12,13] These instances highlight the importance of consumer protection through the financial security obligation, although we are satisfied that this obligation can be under 10% of the project value where merited. Therefore, we consider our decision of capping the security obligation at £50 million for projects up to £1 billion in value, and setting the security level for projects exceeding this threshold on a case-by case basis, appropriately balances consumer protection with the attractiveness of the framework.

2.20 As stated above, we intend to consult further on the details of the implementation mechanism of the decision as part of the licence consultation process. It is also worth noting again that we view the obligation of posting the post-award security as being part of a package of measures under the commercial framework (including the preliminary works payment and the PPWCA process) that can drive consumer benefit. At the same time, we are aware of the possibility that at times, tender-specific circumstances may necessitate a review of these measures. Under such circumstances, we will engage further with the market prior to tender launch to review these elements of the framework, if necessary, to drive the best value for money.

[12] Cancellation of Orsted's Hornsea 4 project is 'big step back' for 2030 target - Utility Week
[13] Vattenfall says it is stopping British Norfolk Boreas offshore wind farm | Reuters

3. Preliminary works payments

Section summary

This section summarises our decision and updated policy position on payments to a CATO during the preliminary works phase ahead of the commencement of the Tender Revenue Stream (TRS).

Consultation question(s)

Q2. Do you agree with NESO's proposed approach to preliminary works payments?

Background

3.1 Preliminary works refer to the activities that are required ahead of construction in order to secure all necessary planning consents for an onshore transmission project. This includes, but is not limited to, activities such as site, ground, animal and environmental surveys, project design, engineering development, stakeholder engagement and consultations, planning applications and associated legal costs. These activities are critical to the development of an optimised and economically efficient design.

Consultation position

3.2 In our consultation, we recognised the importance of preliminary works payments and agreed to incorporate them into the commercial framework to create a level playing field for potential bidders and the incumbent TOs. We considered providing payments for achieving specific milestones during the preliminary works phase to be effective in reducing the equity risk exposure of the CATOs as their TRS payments would only begin at the project commissioning stage. These payments would also incentivise tender participation by new entrants, should they otherwise have been put off by the lack of revenue and cashflow risk during the preliminary works phase.

3.3 We consulted on NESO's proposal to cap preliminary works payments at 50% of the forecast costs to encourage financial discipline while ensuring cash flow concerns do not deter potential bidders. We proposed that payments are triggered by delivering agreed project development milestones. Further

information regarding our proposed approach to preliminary works payments is contained in Chapter 3 of the consultation document.[14]

Summary of consultation responses

3.4 Most respondents supported the provision of preliminary works payments and considered payments during this period would support market interest and reduce the cost of financing preliminary works, ultimately reducing cost to the consumer.

3.5 Four respondents sought clarity around setting of milestones, the qualifying criteria for preliminary works payments, and requested as much information as commercially possible around milestone setting.

3.6 Some respondents also considered the 50% cap to be too low and inappropriate as the incumbent TOs are not exposed to this risk and supported setting a higher and flexible cap for high cost or complex projects to avoid limiting financial viability of the CATOs. One respondent did not agree with imposing a cap on preliminary works payments.

3.7 Respondents were of the view that the framework should align the need for timely delivery effectively without requiring bidders to assume risks that, in certain cases, are beyond their direct control. Respondents suggested that an adjustment or a waiver mechanism may be needed if consenting gets bogged down, or if a project's complexity has been otherwise underestimated in the underlying analysis by NESO.

3.8 A respondent stressed the need for the bidders to engage early enough with the supply chain to be able to secure supply chain capacity at the point it is needed. It was highlighted that exclusion of such a provision from the mechanism could lead to additional risk of project delay and increased costs.

Decision and updated policy position

3.9 Following consideration of the consultation responses, we have decided to allow the provision of preliminary works payments in the Early Competition commercial framework. Preliminary works payments will be made available where, ahead of launching a tender and based on evidence from the market, NESO determines that payments to the CATO during the preliminary works period are required to help remove barriers to entry.

[14] Consultation on the onshore electricity transmission Early Competition commercial framework | Ofgem: Chapter 3

3.10 NESO as the Delivery Body will communicate with potential bidders on whether or not a preliminary works payment mechanism is proposed in respect of a project for tender and provide clear justification, taking into consideration the construction and planning timescales, and the risk perception for a particular project.

3.11 We intend to implement the payment mechanism through the CATO licence. Our updated policy position is that these payments should be capped at up to 50% of the NESO's estimated preliminary works costs. However, for the first few Early Competition projects, Ofgem may exercise its regulatory discretion in raising this cap above 50% if market feedback ahead of each tender suggests this would be beneficial to the success of the tender and in consumer interest. We will consult on the drafting of this as part of the CATO licence consultation.

Rationale for our decision and updated policy position

3.12 We consider it reasonable to take a similar approach to funding preliminary works for CATOs as we take for the incumbent TOs. The incumbent TOs are provided Pre-Construction Funding (PCF) ahead of securing planning consents, however since TRS payments to the CATO will only begin at the project commissioning stage, we consider that revenue in the form of payments for achieving specific milestones during the preliminary works phase to be more consistent with our approach to TOs. We also note stakeholder feedback and consider that provision of preliminary works payments could reduce a CATO's equity risk exposure and result in more competitive bid submissions, as well as incentivising tender participation by new entrants.

3.13 Our current view is that capping preliminary works payments at 50% offers a reasonable balance between helping the CATO finance its preliminary works and providing an incentive to move to Financial Close, while also protecting consumer interest in the event of a CATO abandoning the project. Based on the stakeholder response to our consultation, we feel it would be prudent to retain flexibility around the cap, particularly for the first few Early Competition tenders, as it will allow us to adjust this level upon a project's individual circumstances and market feedback. Our current view is that it would be appropriate to review our position for capping the preliminary works payments following the completion of the first tender exercises or until the market matures.

3.14 In response to stakeholder proposals to significantly raise the cap level, or not placing a limiting cap at all, at this time we maintain our view that capping the preliminary works payments at 50% of forecast costs can act as a protection

providing the CATO with an incentive to complete the project and to complete preliminary works in a timely manner. As risk will be priced into the equity return required by bidders, we are conscious that making the cap significantly higher could reduce the incentive on the bidders to manage 'unforeseeable' risk. Our current view is that we consider it appropriate to keep the option of further refinement of the cap based on market feedback prior to the first Early Competition tender.

3.15 While respondents supported the principle of preliminary works payments, we did not receive any detailed feedback on the specific elements of the proposed preliminary works payment mechanism. We therefore intend to propose for this mechanism to be included in the CATO licence as proposed by NESO.

3.16 We received comments around standardisation of evaluation of bidders' preliminary works plans to help ensure a fair and consistent assessment across bidders. To clarify, a CATO's preliminary work plans will not be assessed in the context of preliminary works payments as it could introduce the potential for bidders to understate preliminary works costs to win the tender. We intend for the preliminary works payments cap to be the same for all bidders and set based on the reference project design. The only variable will be the milestones selected to receive payments.

3.17 Early supply chain engagement has become a more prevalent issue than when the Early Competition model was first developed. We are aware of increasingly long lead times and increased international competition for certain asset types and technologies. The Invitation To Tender (ITT) requires a supply chain strategy and approach to costing (25% scoring weightage in NESO's assessment) and the Early Competition Plan (ECP) model requires all relevant parties (other than debt providers) to be part of the initial bid. Therefore, we consider that the NESO model already encourages early supply chain engagement somewhat, although potentially not to the extent of contractual commitment.

3.18 Allowing a CATO to have money released for down payments to secure the supply chain could risk stranded consumer expenditure (in contrast to an onshore TO who may be able to repurpose investment to other projects) and we do not consider it appropriate that consumers are exposed to this risk through the CATO model.

3.19 We understand that a few potential bidders are already engaging with the supply chain. The CATO framework is designed to incentivise such behaviour, that is locking down supply cost early so that the bidders' exposure is reduced at the

PPWCA stage. Ultimately, bidders are taking on the risk of delivering the project to cost and time and have strong incentives to do both. Supply chain engagement is a critical part of this process.

4. Post Preliminary Works Cost Assessment (PPWCA)

Section summary

We set out our decision on the PPWCA mechanism and provide details on the amendments to the proposed model.

Q3.	Do you agree with NESO's proposed approach to the PPWCA process?
Q4.	Do you agree with Ofgem's proposed adjustments to NESO's approach?

Background

4.1 The PPWCA process is designed to address the cost uncertainty inherent in projects where significant time elapses between bid submission and the start of construction. This mechanism allows for certain cost adjustments to be made after the preliminary works stage, ensuring that the financial model reflects the actual costs at time of construction rather than those forecasted at the time of bidding. NESO's PPWCA proposal aims to balance the need for cost recovery by CATOs with consumer protection against open-ended cost increases.

Consultation position

4.2 In our consultation, we emphasised the importance of appropriate allocation of risks at various stages of project development, delivery and operation to attract new market entrants while seeking to drive down costs for consumers and holding CATOs to account for delivery. We acknowledged that there is a technical and strategic trade off around the treatment of cost uncertainty during the preliminary works phase as the CATO finalises its detailed design for a project that has the potential to be impacted by consenting and surveys.

4.3 We agreed with the principle of indexation to adjust for inflation and recognised that this approach provides a fair and predictable means of updating costs in line with market conditions. We stressed the importance of transparency in the application of indexation and expected NESO to clearly define the eligible indices and the methodology for applying adjustments. We sought stakeholder views on the proposed indexation mechanism.

4.4 We also endorsed the reasonably foreseeable test but identified practical challenges in its implementation. We expressed concern that the test could become subjective and lead to disputes over whether specific costs were truly

unforeseeable. We considered clear articulation and distinction from NESO between what is reasonably foreseeable / unforeseeable to be an important factor in the effectiveness of the PPWCA mechanism and encouraged NESO to continue sharpening these definitions.

4.5 We expressed reservations on the 40% cap on upward cost adjustment. While acknowledging the need to protect consumers from unlimited cost increases, we expressed concern that the cap may be too restrictive, particularly for complex or long-duration projects. We sought stakeholder input on whether the proposed cap strikes the right balance or whether a more flexible approach, such as setting a flexible cap for the first tender, would be more appropriate.

4.6 Further information regarding the proposed PPWCA can be found in Chapter 4 of the consultation document.[15]

Summary of consultation responses

4.7 In response to the consultation, respondents provided extensive feedback to the PPWCA proposals. Out of the 12 responses we received for the questions related to the PPWCA, 11 respondents were broadly supportive of the proposed mechanism. Some concerns were raised around the definition of 'reasonably foreseeable' and stakeholders asked for further clarity on definitions to avoid misinterpretation. Some stakeholders sought exemption of 'High Impact Low Probability' (HILP) events from the overall cap and a few questioned applying a cap where cost escalation is due to unforeseeable events.

4.8 Only 2 respondents agreed with the NESO's proposed cap level of 40%. Furthermore, 1 respondent opposed setting a cap under the PPWCA mechanism altogether. Some stakeholders noted that a cap is not applied to the incumbent TOs under the Large Onshore Transmission Investments (LOTI) mechanism and as such a different standard should not be applied to CATOs.

4.9 One respondent mentioned that the current pressure from affected members of the public on onshore transmission has seen demand for overhead lines to be switched to underground lines, which according to the respondent could increase cost by 500% to 1000%. The respondent stated that risks such as this would not be acceptable to a contractor, whether foreseeable or unforeseeable.

[15] Consultation on the onshore electricity transmission Early Competition commercial framework | Ofgem Chapter 4

4.10 Noting that a CATO could procure through a global supply chain and international contractors, a stakeholder requested to allow a wider range of cost indices and not limit the PPWCA to UK indices only. Another respondent was of the view that overheads and margins should not be fixed as they would also be impacted from bid to PPWCA stage. The respondent also asked for allowance of time impacts within the PPWCA mechanism.

4.11 Our proposed adjustments to NESO's proposal were supported by the respondents with one respondent asking to extend our adjustments to the first three tenders.

Decision

4.12 Based on stakeholder feedback, we have decided to adjust NESO's proposed PPWCA mechanism as follows:

- setting a cap higher than 40% for the first tender to ensure we get a strong level of bids. A higher cap level should provide the bidders with enough of an incentive to build in contingency upfront to ensure a true competition on costs and design is able to take place. This cap level will be finalised during the pre-tender market engagement following the announcement of the first project to be tendered under the Early Competition regime
- specific HILP events to sit outside of the overall cap to avoid the inclusion of excessive risk premia in bids for low probability scope changes occurring
- guidance for how the foreseeable / unforeseeable test will be assessed within a joint NESO and Ofgem decision-making framework to facilitate efficient decision-making on whether a scope change is or is not foreseeable

4.13 We intend to consult on the implementation details of the PPWCA mechanism as part of the CATO licence consultation.

Rationale for our decision

4.14 We remain of the view that ensuring an appropriate allocation of risks at various stages of project development, delivery and operation is key to balancing the need to attract new market entrants while seeking to drive down costs for consumers and holding CATOs to account for delivery. At the same time, an important strategic question is how to balance the priorities of maximising the number of bidders and long-term expansion in the number of TOs against

maximising the transfer of risk onto the CATO to drive cost saving on competed projects.

4.15 We agree with the inclusion of the cap within the PPWCA model as it prioritises the transfer of cost risk onto successful bidders and incentivises sensible bidder strategies. The purpose of the cap is to protect consumers at the time of selection of the successful bidder and therefore incentivise the bidders to assess the risk associated with their design. This can influence the choice of the design options and make the bidders rely on their professional judgement while finalising their assumptions. In the absence of a cap, bidders will have no incentive to price in risk based on reasonably unforeseeable costs and pass the entire risk to consumers.

4.16 Inclusion of the cap should also enable the bidders to optimise their solutions with regard to consenting and technology choices. Two stakeholders highlighted the possibility of substantial cost increases when securing consents, for example if a CATO is required to underground cable rather than build overhead transmission lines which are considerably cheaper. We note that a cap can be effective under such scenarios as an absence of a cap can result in bidders assuming the transmission lines to be overhead only and pass on the risk of cost escalation due to undergrounding transmission lines entirely to consumers.

4.17 A cap would compel an experienced bidder to consider the likelihood of not being able to obtain consent of an overhead line through a particular route and therefore provide an incentive to opt for a consentable design. Due to the cap, bidders will be incentivised to price their bids on the basis of the route which is most likely to obtain consent. However, if a successful bidder is forced to select a different route following consenting based on reasonably unforeseeable reason(s), it will be allowed the cost increase.

4.18 Our analysis to support cap calibration has centred on consideration of comparable regimes (both nationally and internationally), the prevailing counterfactual RIIO arrangements for large transmission projects and understanding of how much costs typically change on equivalent projects during the development phase. Key considerations that support our decision to increase the cap level from 40% are as follows:

a) Incumbent TOs developing projects under RIIO are effectively insulated from the cost of unforeseeable design changes during the development phase since cost allowances are typically set based on the finalised design and we want to maintain a level playing field to the maximum extent possible

b) Looking at a range of recent and historical project examples in transmission and interconnectors, we see on average a c.30% cost increase during the development phase. However, it is also the case that:

- more recent projects have experienced sizeable cost increases far beyond the proposed 40% cap
- most of these cost increases have been driven by supply chain constraints rather than scope changes – the indexation for real price effects should insulate bidders from this partially (if not fully)

4.19 We have decided to exclude certain HILP events from the cap as it will provide more certainty to bidders and deter them from pricing excessive risk premia in their bids. Such events warranting consideration for exclusion include, but may not be limited to, change in law, unavailability of insurance and force majeure events which are outside the control of the CATO. We will finalise the relevant details including the events that qualify as HILP prior to the ITT stage of the first Early Competition tender and this will be included in the tender documentation.

4.20 We are working with NESO to develop further guidance on the "reasonably foreseeable" test prior to the launch of the first tender. This guidance will include the principles when applying the test, outline various approaches and detail how the test will be applied, with worked examples. This guidance will also identify the HILP events that will be excluded from the cap. To make the PPWCA process robust and fair, a joint Ofgem-NESO decision-making framework will also be developed.

4.21 In response to allowing the bidders to use non-UK based indices, we recognise stakeholder concerns about the differences between UK and international indices, as well as issues with currency. However, there is an inherent challenge in listing all indices across the world and all exchange rates. We therefore support the use of UK indices as well as some key foreign exchange rates (eg US Dollars).

4.22 Two stakeholders asked for more clarity around the treatment of underlying costs, overheads and margins, and the impact of time delays as part of the PPWCA process. Underlying costs will be indexed with overheads being a percentage of these costs. A CATO can ask for additional uplift to account for unforeseeable risk with prices based on overheads and underlying costs set at the bid stage. Since overheads and margins are percentages, they would scale with underlying costs. In addition, delays due to unforeseeable events will also be considered for cost uplift under the PPWCA principles.

5. Payment mechanism and performance incentives

Section summary

This section summarises our decision and updated policy position with respect to the mechanism by which a CATO will receive its revenue and on the range of performance incentives.

Q5.	Do you agree with NESO's proposals regarding the payment mechanism and performance incentives to apply to a CATO?

Background

5.1 This section concerns how CATOs will be remunerated over the operational period and establishes performance-related incentives and penalties designed to align the CATO's financial interests with long term consumer benefits. The framework's primary objective is to ensure that CATOs are appropriately rewarded for efficient, reliable performance while holding them accountable for service quality and delivery standards.

Consultation position

5.2 In our consultation, we supported the core structure of the TRS model as proposed by NESO but identified several areas requiring further consideration. Further information regarding the proposed payment mechanism and performance incentives can be found in Chapter 5 of the consultation document.[16]

5.3 We proposed an availability incentive that links revenue to asset availability. NESO's proposal for linking availability to revenue includes setting a specific target availability for each tender, but assumes the 98% target used in the Offshore Transmission Owner (OFTO) regime as an appropriate initial reference point from which to develop a tender-specific target. According to its proposal, any 1% deviation in availability from the target value leads to 2.5% TRS adjustment (up or down). However, we questioned whether the 98% target was appropriate and sought stakeholder views.

[16] Consultation on the onshore electricity transmission Early Competition commercial framework | Ofgem Chapter 5

5.4 We queried the absence of explicit late delivery penalties and whether delayed revenue payments through the TRS provide sufficient disincentive for late delivery. We suggested additional financial penalties for late delivery to ensure timely project completion and invited stakeholder input on whether such penalties should be incorporated into the final framework.

5.5 We supported the principle of stakeholder and environmental incentives, however stated our concern around measurement and enforcement challenges and sought stakeholder views.

5.6 We also proposed that CATOs should be incentivised to maintain availability through a regime that supports both incentives as well as deductions in cases of under / non-performance of services.

5.7 We questioned NESO's proposal of not mandating an equity gain share. We enquired whether this proposal could, in certain circumstances, result in generating excessive profit from an equity sale during the low-risk phase as earnings required during the high-risk phase have already been secured by the investor selling its equity. Therefore, we asked the stakeholders to also provide their feedback on the equity gain share proposal.

Summary of consultation responses

5.8 We received a mixed set of responses to our proposals. However, stakeholders broadly agreed with the general policy intention.

5.9 One stakeholder raised concerns about the measurement of asset availability and requested a clear methodology for measuring availability from NESO. Another respondent raised a concern that the availability incentive as proposed could conflict with specific network user needs and suggested using frequency of incidents as another penalty metric.

5.10 One of the incumbent TOs questioned the level playing field by mentioning that TOs only have penalties on availability and are not rewarded for achieving a higher availability. As such, it disagreed with the proposed TRS uplift of 5% for CATOs for exceeding the availability target.

5.11 Some respondents sought further clarity on the commencement of TRS payments especially for projects with phased commissioning dates and asked for clarity on calculation of consumer benefits in case of early delivery.

5.12 Respondents also highlighted the need for connections and environmental incentives to be proportionate to CATOs. One respondent was of the view that the

OFTO inspired availability incentive is a higher bar than applied to the incumbent TOs, citing the National Electricity Transmission System (NETS) Performance Report 2023-24 which shows the annual Great Britain (England, Scotland and Wales) system availability below the 98% availability threshold (as proposed by NESO) for the last five years.

5.13 One respondent suggested using Consumer Prices Index (CPI) rather than Consumer Prices Index including Owner Occupiers' Housing Costs (CPI-H) for TRS indexation, noting that it expected a CATO's operating and index-linked financing costs to be linked to CPI. It also noted that CPI-H swaps are not readily available within the market and would require a cost premium.

5.14 Respondents overwhelmingly opposed mandating an equity gain share by viewing it as an investment deterrent and supported NESO's proposal of not applying equity gain share for CATOs.

Decision and updated policy position

5.15 Our decision on NESO's proposed payment mechanism and performance incentives is as follows:

- TRS model: We have decided to accept the TRS model as proposed by NESO for the Early Competition regime and indexation of the TRS with CPI-H to ensure that CATO has matching revenues in each period to cover its project cost
- Availability incentive: We have decided to accept NESO's proposal to incorporate the availability incentive into the Early Competition revenue model. Our current view is to include the 98% availability target as an initial reference point for the first tender(s) with mechanisms for availability measurement, service reduction adjustments, first and last periods adjustment and seasonality adjustments. We intend to consult on the details of the availability incentive as part of the CATO licence consultation
- Timely delivery incentive: We have decided not to introduce imposition of any financial penalties for late delivery against the target delivery date
- Other incentives: We have decided to approve NESO's proposed inclusion of stakeholder engagement, environmental considerations and timely new connections incentives in the CATO licence, provided these can be proportionate and reflect the nascent state of the Early Competition regime.

These incentives should be aligned, where appropriate, with the RIIO-3 Electricity Transmission (ET) framework[17]

- Equity gain share: We agree with NESO's proposal of not mandating the equity gain share for Early Competition projects

Rationale for our decision and updated policy position

5.16 TRS based payment model is not a novel concept and has a track record of successful implementation within the OFTO regime and in the water sector through the Direct Procurement for Customers (DPC)[18] model in Great Britain. It provides a suitable and practical alternative of revenue generation for stand-alone assets as opposed to the counterfactual of the Regulated Asset Value (RAV) based model for the incumbent TOs having a wide portfolio of assets. Therefore, we have approved the proposal for its application within the Early Competition regime.

5.17 While addressing the issue of indexing the TRS with CPI-H, we note that indexation is a common practice in infrastructure projects of this nature. Since TRS is partially indexed, that is only on the Operating Expenses (OPEX) component, it serves to provide a natural hedge against inflation risk. Therefore, we do not expect the CATO to use inflation swaps.

5.18 Indexing the TRS with CPI-H is to ensure that customer bills rise with household inflation. CPI-H linked indexation has become the industry standard and is also being used as the inflation index for the incumbent TOs, and we do not see any compelling reason to treat underlying inflation differently across the two regimes. In addition, we remain open to the possibility that while some bidders may prefer CPI to CPI-H (for reasons related to inflation swap pricing / availability), others may prefer CPI-H.

5.19 The RIIO price control framework includes a suite of incentives that apply to the TOs across a range of operational activities, including on asset availability and environmental performance. We consider incentives play an important role in driving high performance and providing additional consumer value and want to ensure that appropriate performance incentives are in place for CATOs as well. CATOs should be incentivised to maintain availability through a regime that

[17] RIIO-3 Sector Specific Methodology Decision – ET Annex
[18] Direct Procurement for Customers - Ofwat: Direct procurement for customers (DPC) involves a water or wastewater company competitively tendering for services in relation to the delivery of certain large infrastructure projects, resulting in the selection of a third-party competitively appointed provider (CAP).

supports both incentives as well as deductions in cases of under / non-performance of services.

5.20 We agree with NESO's conclusion that the CATO not receiving any TRS until the project is commissioned should be a sufficient incentive as it would continue to incur debt costs with no revenue which reduces the potential returns for shareholders. This has been standard practice proposed for delivery incentives in other contexts, such as the current OFTO regime. We consider this approach appropriately balances commercial incentives with financeability. While delivery remains critically important, we consider the delay of access to TRS is a sufficient and comparable delivery incentive to that in place elsewhere in Electricity Transmission (ET) and therefore an additional incentive focused around the date is not required. Adopting this proposal for Early Competition would, as a result, follow standard regulated / infrastructure project finance delivery and create a stronger incentive for timely delivery.

5.21 Regarding the stakeholder queries to the point at which a CATO starts receiving the TRS, our current view is that a CATO should become eligible to receive TRS payments once the project has been delivered. Similar to the Accelerated Strategic Transmission Investment[19] (ASTI) framework for the incumbent TOs, we consider a project to be delivered when the asset(s) has been made available for operational service and configuration by NESO and been successfully energised. Our current view is that we do not consider it fair or appropriate to apply a different standard or definition of project delivery between TOs and CATOs.

5.22 We note that the availability incentive structure for CATOs is modelled on the OFTO regime and provides a CATO with an incentive to maintain greater than expected levels of asset availability, which benefits consumers. This incentive of 98% target availability has worked well in the OFTO regime with a majority of OFTOs being able to achieve and exceed the availability target. In addition, CATO assets will be required to be constructed and operated in accordance with the Security and Quality of Supply Standard (SQSS), therefore inherently carrying the requirement of redundancy. We consider this target to be appropriately challenging, and it can result in more competitive bids if bidders are confident in outperforming this target. Our current view is that the 98% availability target is appropriate as an initial reference point for the first tender(s) but we intend to

[19] Accelerated Strategic Transmission Investment Guidance And Submission Requirements Document

make final decision on this target as part of the CATO licence consultation and also intend to keep it under review going forward to ensure consumers receive value for money.

5.23 In case of early delivery by the CATO, customer benefit needs to be assessed and realised. We expect that under the enduring Centralised Strategic Network Plan (CSNP) regime, the optimal delivery date will be determined by the outcome of the CSNP, meaning that earlier delivery may not always add further consumer value. However, if such a scenario changes during the preliminary works phase, then we may ask the CATO to propose a plan to accelerate delivery and upon review, could allow reasonable additional costs in the PPWCA outside of the cap.

5.24 In cases where a project is delayed due to exogenous factors outside a CATO's control, such as the requirement to undertake additional works, our current view is that the TRS will still be paid for the full 35-year term (as opposed to reduction from 35 years if delay is attributed to the CATO) with the additional cost of the delay factored into the TRS.

5.25 We agree with NESO's proposed methodology of the control room recording a CATO asset's availability information regarding its Operational Capability Limit (OCL) and Service Capability Schedule (SCS), with reasons recorded for any reduction in service to determine if the event was a transmission or non-transmission service reduction. We intend to propose a seasonality factor to be included in the payment mechanism to manage changing targets and planned outages. The CATO licence will set out reasons for an outage that will not be considered a penalised outage, such as if it was caused by the actions of another TO.

5.26 In terms of using the 'Energy Not Supplied (ENS)' incentive similar to TOs instead of mirroring the OFTO model, it is difficult to see how the ENS regime would work materially differently to an availability percentage for a single asset. In addition, it would be hard to test as it would depend on the prevailing system requirements at the time. NESO will need the option to use CATO assets as and when required, therefore the availability target as designed offers a practical solution to such issues. However, as more CATO assets are commissioned, it may make sense to move to an ENS approach. We intend to consult on the details of the incentive as part of the CATO licence consultation and would intend to consider reviewing the incentive in the future.

5.27 Additionally, while the range of likely incentives in the RIIO-3 ET framework is wider than those incentives proposed by NESO for CATOs, this reflects a different

scale of operation with TOs managing a large portfolio of assets on the network while CATOs would, in the short to medium term at least, be managing only a limited number of assets. Therefore, we agree with NESO that incentives around asset health, which play a key role in incentivising TO behaviour, are disproportionate for CATOs and are therefore not included in the commercial framework at this time.

5.28 We expect equivalent environmental consideration by TOs and CATOs across the network. These considerations should be beneficial to consumers, however some of the proposed measures may be disproportionate given the size of a CATO's operation in relation to that of the TOs. Therefore, we may consider applying environmental incentives in line with our own policy objectives and this will be detailed within the tender documentation.

5.29 The Early Competition regime should not have a negative impact on any individual user of the system, and we observe that making a CATO compliant to similar standards and codes the incumbent TOs are subject to should prevent such an impact.

5.30 In our consultation, we invited responses from stakeholders to NESO's equity gain share proposal. In response, stakeholders overwhelmingly opposed mandating an equity gain share for Early Competition projects. There was consensus among respondents that such a mandate could act as a barrier to market participation, particularly for traditional infrastructure players who rely on equity to fund new projects.

5.31 We note that requirements for return on investment differ for greenfield and brownfield[20] investors. Under the PPWCA model, equity has a downside exposure beyond a certain limit. Therefore, greenfield investors may be compelled to increase their bid Economic Internal Rate of Return (EIRR) if an equity gain share is included within the Early Competition regime. Stakeholders argued that any gains realised upon the sale of equity during the lower risk operational phase should not be characterised as a windfall gain but the resultant value earned should be considered as a reward for de-risking the project through various stages of development.

[20] Greenfield investment relates to projects that start from scratch, without relying on any existing infrastructure and therefore lack constraints imposed by prior work. Brownfield investment refers to investing in an existing asset.

5.32 We acknowledge the stakeholder views and have therefore decided we will not require an equity gain share for Early Competition projects. We want competition to drive better value for consumers and consider mandating an equity gain share may counter this objective.

6. Additional works obligation

Section summary

This section summarises our decision and updated policy position on additional works which the CATOs would undertake on their assets beyond the scope of the originally tendered work.

Consultation question(s)

Q6. Do you agree with NESO's proposals regarding the additional works obligation?

Background

6.1 As the electricity transmission network expands due to decarbonisation of energy in support of the government's Net Zero obligations, it is likely that a CATO will have to undertake additional works on its assets over time, either to increase network capability or to facilitate new network connections. The additional works obligation addresses the potential need for modifications or new investment beyond the originally tendered project scope.

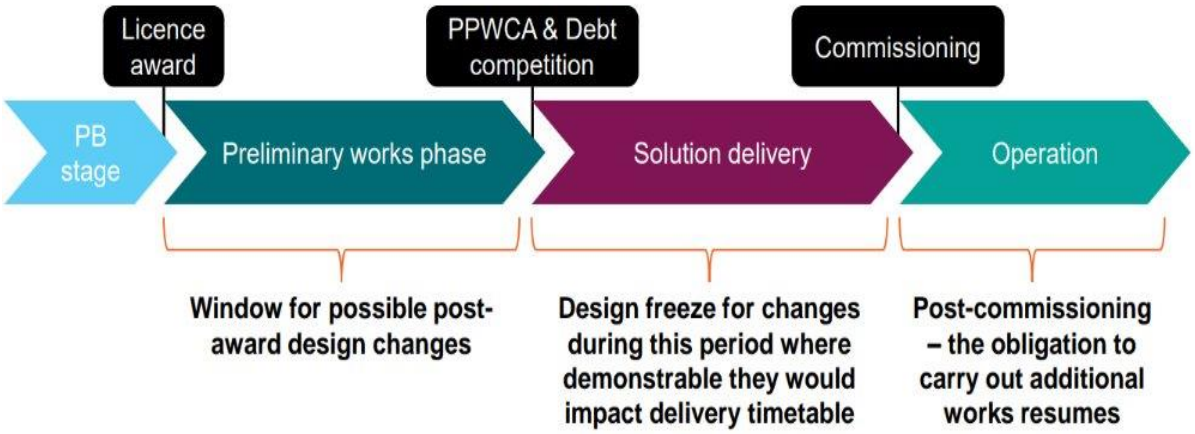
Consultation position

6.2 In our consultation, we sought stakeholder feedback on the following design adjustment process post-award and pre-commissioning due to additional works obligations proposed by NESO:

- once a licence has been awarded the CATO will commence the preliminary works phase. During the preliminary works phase the CATO is required to consider post-award changes
- the CATO is 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
- if the CATO considers the additional works would compromise or delay the delivery of the original solution it must justify this to Ofgem in written format within a prescribed timeframe
- if Ofgem disagrees with the CATO's assessment it can obligate the CATO to undertake the works, with the CATO able to dispute this decision through the standard dispute mechanism available to it

- costs associated with changes to the design as well as costs involved during the preliminary works stage will be included within the PPWCA / re-pricing mechanism
- once the asset has been constructed and commissioned, the obligation on the CATO to carry out additional work resumes

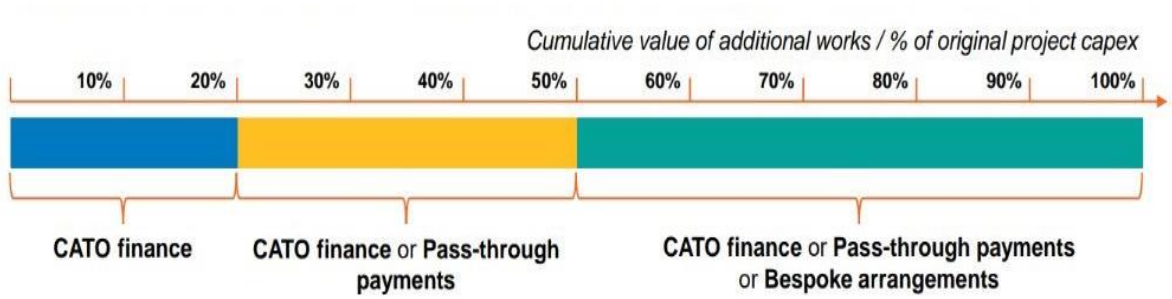
Figure 2: NESO's proposed design adjustment process



6.3 NESO's proposal adopted a flexible approach depending on the timing, type and scale of the Additional Works required.

6.4 We supported NESO's proposal, including the phased approach to design adjustments and funding mechanisms for additional works. This approach requires CATOs to self-finance additional works up to 20% of original capital costs, with alternative options for larger investments. We recognised the potential impact of additional works on the originally tendered project and emphasized the importance of documenting the scope and timing of these works ahead of time.

Figure 3: Cumulative value of additional works and NESO proposed funding approaches



6.5 We considered the scenario where multiple connection requests may constrain a CATO's ability to respond and suggested establishing periodic windows for

connection requests to facilitate robust network planning. This approach is designed to ensure that CATOs can effectively manage additional works while maintaining the integrity of the original project.

6.6 We also expressed concern around intergenerational fairness, especially in respect of larger projects. If 50% of the value of a project were to be recovered as 'fast money', current consumers would be paying more now for a benefit received by future consumers. We therefore welcomed stakeholder feedback on this issue.

6.7 Further information regarding our proposed approach to additional works obligations is contained in chapter 6 of the consultation document.[21]

Summary of consultation responses

6.8 We received 12 responses to the consultation question of additional works obligation. As with other consultation proposals, respondents broadly agreed with the key principles of additional works obligations. Two of the incumbent TOs were in favour of placing obligations on CATOs similar to those which TOs already follow.

6.9 Some respondents were concerned about the proposed self-financing of the additional works obligation. They noted the proposed self-funding for additional works up to 20% (and more so if up to 50%) could cause financing issues, especially if costs escalate towards the PPWCA cap. Two respondents suggested mirroring the OFTO regime for additional works ranging in value from 0 – 20% of the original project value. They were of the view that such an arrangement subjects the OFTOs to additional works obligations only after construction completion and fixes the self-finance obligation at the time of financial close. The project financiers are therefore aware of a fixed obligation for arranging additional capital over the initial TRS period.

6.10 One respondent was of the view that a bespoke arrangement of a side Regulated Asset Base (RAB) model above the 50% additional cost would require a separate revenue stream or a different financial model, and such an arrangement could give rise to inter-creditor issues as a CATO would potentially be owning two different sets of assets.

[21] Consultation on the onshore electricity transmission Early Competition commercial framework | Ofgem Chapter 6

6.11 Respondents agreed that a CATO should not be exposed to funding risk and would need to be kept whole on a cost and risk basis for works beyond a certain threshold. Two respondents asked for a Design & Build (D&B) tender arrangement to be allowed under all cases while another stakeholder favoured adopting any funding route irrespective of the obligation as this would allow financing to be tailored to the nature of additional works, allowing appropriate risk allocation and incentives to be set in the best interest of consumers.

6.12 Three respondents agreed with our concern around inter-generational fairness issue for making pass-through payments to a CATO for additional works obligations equal to 50% of the original project value. However, 1 respondent while acknowledging the concern, stated that the proposal was a suitable trade-off and consistent with the current ethos of investing in the network now to lower costs for consumers in the future by enabling cheaper low carbon energy.

6.13 Another stakeholder was of the view that bespoke funding arrangements would be a better option for all thresholds to prevent fast money and intergenerational fairness issues. One of the incumbent TOs did not agree with our concern and argued that payment by current consumers for future consumers to receive benefit is not a risk as someone will always need to pay for the work to be done.

Decision and updated policy position

6.14 We have decided to accept NESO's proposal to include an additional works obligation and will propose this for inclusion in the CATO licence. We intend to consult on the specific funding arrangements as part of that licence consultation, but based on feedback so far, our current view is that funding arrangements for the additional works obligation should be as follows:

- CATO is required to finance the cumulative level of investment up to 20% of the original CAPEX value (not indexed)
- for additional works with a cumulative value greater than 20% and up to 50% of the original CAPEX value, the CATO will have the option to either self-finance or it can select a pass-through payment
- for additional works with a cumulative value greater than 50% of the original CAPEX value, the CATO can either opt to self-finance the obligation, receive an upfront payment or agree a bespoke funding arrangement with Ofgem
- to protect a CATO as well as consumers from undue risk, we will exercise regulatory discretion, if required, to ensure the most efficient and timely approach on a case-by-case basis

Rationale for our decision and updated policy position

6.15 Post-award of a licence, the CATO will be obligated to support the development of the wider network in line with its obligations as a TO under the System Operator Transmission Owner Code (STC), consistent with the incumbent TOs. The nature of the additional works can potentially have a significant impact on the originally tendered project. Therefore, it is imperative to document the scope and timing of the additional works in question as far ahead as possible to allow the bidders to fully understand it and respond accordingly.

6.16 A clear definition of the level of obligation will enable bidders to duly consider these obligations at the tender stage. For this purpose, NESO can refer to network planning documentation including the Network Options Analysis (NOA), transitional Centralised Strategic Network Plan 2 (tCSNP2)[22] and the enduring CSNP,[23] that identifies the future infrastructure needs. This should lead to the appointment of a CATO amenable and understanding to the need of additional works in context of wider network development.

6.17 We remain of the view that NESO should also consider a scenario where a number of individual connection requests may constrain a CATO's ability to respond. We consider that this could be managed by establishing periodic windows for connection requests to enable CATO response and compliance as this approach can facilitate robust network planning.

6.18 We do not agree with the suggestion that the additional works funding mechanism needs to mirror the OFTO precedent and have decided that a CATO should not be subject to the 20% cap on additional works that applies in the OFTO regime. This is because the purpose of the cap under OFTO was to ensure the requirement was financeable and OFTOs are not exposed to uncapped liabilities. Under the CATO regime, the 20% cap will need to be disapplied as there is a likelihood of exceeding this cap when facilitating connections onshore, especially for more integrated network solutions. The additional works mechanism allows for new investment pricing and financing to address the issue of uncapped obligation on a CATO.

6.19 Furthermore, limiting the financing requirement by fixing it in nominal terms as implied by a stakeholder to prevent the obligation from indexing up over time may become problematic. If the obligation is capped in nominal terms, it could

[22] Transitional Centralised Strategic Network Plan (tCSNP) | National Energy System Operator
[23] Network Planning Review (NPR) | National Energy System Operator

inadvertently lead to a scenario where following a period of inflation, the value of the obligation may not be sufficient to cover the additional works should the CATO be asked to undertake them.

6.20 We recognise that the mechanism for funding the additional works obligations needs to be flexible to address the potential uncertainty that can expose the CATO and consumers to risk under certain circumstances. In response to the concerns around the scope and financing of this obligation, our current view is that there will need to be an assessment on a project-by-project basis as additional works can vary greatly in terms of scope and scale. It may be the case that the additional works obligation may simply need to be a remote scenario, eg, a discrete asset where it is unlikely that such an obligation would in fact arise. Conversely, the opposite may be true as well. The bands / thresholds are meant to provide guidance and clarity for different project sizes. However, we currently consider it would be appropriate to keep the option of negotiation with Ofgem open. We acknowledge the need for committed capital by the CATO which will have a cost associated with it. As undertaking the additional works is an obligation to support the expansion of the transmission system, this in turn is an inherent cost of the system.

6.21 Although our preferred option for funding the additional works obligation is using the existing arrangement, we will not rule out the need for D&B tenders for funding this obligation, given that the original contractor may no longer be under contract when such an obligation arises. We recognise that the additional works obligations require a flexible approach depending on the timing, type and scale of the obligation.

6.22 Allowing a bespoke arrangement for funding the additional works obligation irrespective of the project value threshold would require a regulatory process for the CATO to demonstrate that it has sought an appropriate funding solution for the project in negotiation with Ofgem. If we were to offer such flexibility, we will need to make sure that there is still a backstop obligation for the CATO to fund the additional works at the defined threshold level.

6.23 Another point to note is that the additional works obligation of greater than 50% of the original project value could be considered as a separate project capable of being put forward for tender under the Early Competition regime, subject to

fulfilling the Criteria Regulations 2024.[24] If such an obligation cannot be tendered under the Early Competition regime, a bespoke funding arrangement aligns with the principle that the additional works obligation of such magnitude alters the risk profile of the project and therefore requires a new regulatory deal as the bid TRS may not be suitable any longer.

6.24 We have noted stakeholder feedback on the issue of intergenerational fairness surrounding the additional works obligations of large magnitude. In such cases, we would consider other financing alternatives in the first instance. However, there may be challenges with this approach related to the timing of the additional works taking place later during the revenue period. Under such a scenario, pass-through payment may be considered a backstop option in case a suitable financing option cannot be found.

[24] The Electricity (Criteria for Relevant Electricity Projects) (Transmission) Regulations 2024, March 2024

7. Revenue period

Section summary

This section summarises our decision on the revenue period over which a CATO recovers its costs and the next steps following the end of the revenue period.

Consultation question(s)

Q7. Do you agree with NESO's proposals regarding the revenue period and end of revenue process?

Background

7.1 The revenue period is the duration during which a CATO is entitled to receive regulated payments under the TRS to construct, operate and maintain assets on the electricity transmission network following the successful commissioning of the transmission asset.

7.2 Based on the expected asset life of a typical overhead line solution, NESO proposed a 35-year revenue period for CATOs, with asset amortization over 40 years, allowing for a residual value payment. The end-of-revenue period process includes options for re-tendering, extending the licence, or decommissioning based on network need and asset health assessments. NESO proposed different approaches depending on the length of enduring network need:

- the need ends at or around year 35: assets are decommissioned and the CATO paid the residual value payment out of Transmission Network Use of System (TNUoS) charges
- the need ends at or around year 40: the CATO's revenue period is extended with payment for operation and maintenance plus a margin during the extension, with residual value payment made from TNUoS to avoid the need for the CATO to raise new finance
- the need extends materially beyond year 40: the revenue period no longer being set by the length of the need opens up the possibility of the need extending beyond the term of the initial revenue period, making re-tendering more likely

7.3 NESO did not support revenue stacking opportunities owing to complexities that the proposed revenue model may lead to, including the proposed end-of-revenue period arrangements and asset transfer. Furthermore, NESO proposed that to allow for a number of possible financing options, Ofgem should offer to take

refinancing risk (upside and downside) to allow for shorter term debt that may be available on more competitive terms. Additional information regarding the proposed revenue period is contained in Chapter 7 of the consultation document.[25]

Consultation position

7.4 In our consultation, we agreed with NESO's proposal for a 35-year revenue period for CATOs, with asset amortization over 40 years, including a residual value payment equal to 5/40th of the opening asset value paid through TNUoS. This approach balances the need for long-term investment with the practicalities of financing and maintaining the assets. We highlighted the importance of asset health and maintenance as key consumer protection considerations and supported the proposed end-of-revenue period options based on asset health assessments.

7.5 We also considered the trade-off between improving the financeability of investments under the Early Competition regime and maintaining stable tariffs for consumers. Additionally, we sought stakeholder views on the refinancing risk allocation and the potential application of a refinancing gain share mechanism. This approach aims to ensure that the revenue period and end-of-revenue period processes are fair and sustainable for both CATOs and consumers.

Summary of consultation responses

7.6 We received responses from 11 stakeholders to our proposals. Stakeholders generally agreed with the proposals around length of revenue period, end-of-revenue options, revenue stacking, asset transfer and refinancing gain share. A vast majority of the respondents acknowledged the refinancing risk due to mismatch between bank debt tenor and the revenue period and endorsed NESO's proposal to allocate this risk to the consumers.

7.7 An overarching concern expressed by the respondents was the limited availability of debt for a revenue period of 35 years. Stakeholders responded that a 25-year debt term is the upper limit for most commercial banks and the bond market for such debt terms is thin, leading to long-tail debt solutions which are inefficient and can lead to a higher TRS. They supported the view that consumers assuming the refinancing risk can help run a robust debt competition and lead to better consumer value.

[25] Consultation on the onshore electricity transmission Early Competition commercial framework | Ofgem Chapter 7

7.8 The majority of respondents called for Ofgem to allow for debt refinancing in order to match the revenue period. One respondent proposed conducting a refinancing at mid-point of the revenue period overseen by an independent technical adviser followed by guidance on TRS adjustment after the refinancing.

7.9 Another respondent offered an alternative view that a shorter-term debt may not be more competitive, and it may not be optimal to have refinancing risk inherently built in. Two respondents, while favouring refinancing, agreed with our concern for potential of gaming the process to the detriment of consumers. It was also noted that bond financing can be uneconomic due to high breakage costs.

7.10 A stakeholder expressed concern that matching debt period to the 35-year TRS period reduces funding competition benefits as CPI swaps for 35-40 years may not be available or cost-effective. Some stakeholders requested more information on what aspects of the debt competition will be fixed by the Procurement Body and how this process will be overseen.

7.11 On the asset health proposal, a couple of stakeholders were in favour of an asset management plan to cover the entire revenue period as opposed to the 30-year health check and also called for defining the expected asset life of sub-components as it would impact the Operations & Maintenance (O&M) strategy. One stakeholder sought further clarity on how the margins would be set for O&M at the end of the revenue period and how bidders should set this margin in their bids.

7.12 One stakeholder suggested considering the views of both shareholders and lenders on how the asset is valued and suggested using the readily available SOPC4[26] precedent, in which equity is paid out at market evaluation in most circumstances except force majeure (no fault). An incumbent TO was concerned that extending the revenue period to 40 years could give advantage to the incumbent TO whereas the CATO OLR process gives rise to concerns about funding, resources and reputational risks.

Decision

7.13 We have decided to set a standard 35-year revenue period for Early Competition projects with the asset amortised over 40 years, allowing a residual value payment equal to 5/40th of the original asset value at the end of the period. We

[26] SoPC Version 4 [ARCHIVED CONTENT] Standardised contracts - HM Treasury

have also decided to accept NESO's proposals on the end-of-revenue period process, asset health and revenue stacking.

7.14 After careful consideration of stakeholder responses and to drive value for money in consumer interest, we will agree to a debt refinancing if the market feedback during the initial Debt Funding Competition (DFC) indicates that:

- there is no credible financing option which does not include a refinancing; or
- the Net Present Value (NPV) of the TRS calculated using a financing option with refinancing is significantly lower than without it

7.15 If agreed, a CATO may include an Agreed Refinancing within its financing plan as part of the initial DFC.

7.16 An Agreed Refinancing will not be subject to the gain share provisions applied to other refinancings, and any positive or negative impact of Agreed Refinancing would be fully passed through to consumers. However, performance risk will be borne by the CATO. Details of the debt refinancing mechanism will be included in the CATO licence for consultation.

Rationale for our decision

7.17 We consider the proposed 35-year revenue term to be appropriate for Early Competition projects as it seeks to balance more than one objective. While this is a departure from the current RIIO methodology, we note that the current approach to network planning does not allow for the end of network need to be forecast and assumes an enduring need. Since there will be little variation in asset life for network solutions and the network need is likely to be enduring, we consider setting a fixed revenue period will ensure solutions are available for a minimum length of time.

7.18 We note that precedents such as Public Private Partnerships (PPPs) and OFTOs generally adopt a revenue period of 20 to 25 years. However, these are very different assets to those expected in onshore transmission where an overhead line may not require major maintenance for 40 years. We consider this an appropriate benchmark over which to set the revenue period and amortise the assets. The option to undertake maintenance and extend the asset life would require a period of time for reinvestment to take place before the asset fails, therefore suggesting an optimal revenue period shorter than 40 years.

7.19 We agree that a 35-year revenue period should incentivise the CATO to steward and maintain the asset by virtue of provision of a residual value payment. The

term of revenue period is relatively closely aligned with the economic life of the asset, leaving a 5-year period to incentivise maintenance of the asset.

7.20 In response to questions around asset health measurement and survey, our intention is that the CATO license will set out the requirements to be met, such as the review of the asset health assessment and maintenance strategy including a standard asset health condition test, and imposition of penalties for poor asset health. We intend to consult on these details as part of the CATO licence consultation. In addition, the tender will specify 5 years of asset life at the asset health condition test at year 30. Bidders will therefore need to develop and price their maintenance strategy, including management of sub-components and would be evaluated on the strength of their proposals for this purpose.

7.21 We do not expect the O&M margins at the end of the revenue period to be set upfront or included in the bids given the uncertainty surrounding the options at the end-of-revenue period. Such margins will be negotiated at that time depending on the option exercised.

7.22 We do not agree with the opinion that the option of extending the revenue period following the initial term of 35-years would provide an advantage to the incumbent CATO as we consider it an incentive for bidders, which should drive a robust competition. Regarding the termination provisions and concerns about the CATO OLR process, please refer to our July 2024 Decision[27] on policy updates to Early Competition in onshore electricity transmission networks which includes a chapter on options for dealing with CATO / tender failure. Ahead of the first CATO tender we will issue CATO OLR Mechanism guidance if necessary, which we expect to follow a similar approach to the equivalent OFTO OLR guidance.

7.23 We have also given due consideration to stakeholder responses to issues relating to debt funding and refinancing due to the potential inconsistency between the commercially available debt tenor and the 35-year revenue period. It is possible that the market may identify innovative solutions to the CATO's project financing requirement with a 35-year revenue term. However, we remain open to the possibility that matching a debt tenor with a lengthy revenue period may not be able to drive value for money for consumers and result in limiting financing options as well. We recognise the potential limitations associated with the bond market and also note that bonds are not mandated. In addition, inflation swaps

[27] Decision on Early Competition in onshore electricity transmission networks: policy update | Ofgem: Chapter 6

are also not mandated. CPI-H is linked only to operating costs and therefore acts as a natural hedge while being linked to consumer costs.

7.24 To ensure intergenerational fairness, it is essential to spread the repayment of construction finance over the asset's life. However, we remain cognisant of the scenario where a 40-year debt tenor, including construction period, may limit liquidity or increase costs of such debt.

7.25 In order to alleviate this concern, a CATO will be allowed to refinance its debt subject to Ofgem agreement as stated in para 7.14 above.

7.26 If agreed, a CATO may include an Agreed Refinancing within its financing plan as part of the initial DFC. An Agreed Refinancing will not be subject to the gain share provisions applied to other refinancings (such as those to take advantage of favourable market conditions), and any positive or negative impact of Agreed Refinancing will be fully passed through.

7.27 The CATO must conduct another DFC to establish the terms of refinanced debt, aligning with initial DFC principles to ensure competitive and attractive refinancing terms. We will oversee the refinancing DFC, consistent with the initial DFC oversight approach.

7.28 If the DFC raises more funds than needed to repay the initial debt, we will:

- require the CATO to pay the balance, equal to the NPV of the additional gearing value, to NESO
- reduce TRS to reflect the positive NPV effect of additional gearing
- use a combination of both, using the Refinancing Equity IRR for NPV calculation

7.29 If the DFC raises insufficient funds than needed to repay the initial debt, either due to debt market volatility or project under-performance, CATO investors may:

- inject more equity at the Refinancing Equity IRR
- ask Ofgem to agree to a higher TRS that supports the higher debt amount, but is repaid ahead of further equity distributions to achieve the Refinancing Equity IRR; or
- enter into CATO default termination, though this risk is remote given the project's capital intensity and significant capital being part of the TRS

7.30 We intend to consult on the details of the debt refinancing oversight mechanism as part of our consultation on the CATO licence. Our primary goal is to ensure a

refinancing process that is robust, fair and protects customers from poor performance by the CATO. We propose to place financial reporting obligations under the Licence that require the CATO to report information to us that helps to measure its financial resilience.

7.31 We want to encourage a regime that also allows a CATO to take advantage of favourable market conditions by arranging for refinancing when it drives value for money in doing so. Therefore, we propose to place a reporting obligation on the CATO in the licence, asking them each year to consider the current debt markets and the prospects for refinancing.

7.32 The CATO already has an incentive to achieve a successful refinancing given the potential need to inject new equity or loss to a CATO OLR. Therefore, to capitalise on favourable market conditions, we will allow for a debt refinancing gain share mechanism which would be separate from the provisions of an Agreed Refinancing. For consistency, the sharing percentages would reflect those in comparable markets (eg OFTOs) at the time. [28]

7.33 Where an Agreed Refinancing is put in place, we will restrict the use of any other refinancing provisions in the licence. There is a risk that, in good market conditions, the CATO looks to trigger a standard refinancing just ahead of an Agreed Refinancing to capture some of the upside. Once an Agreed Refinancing has occurred, the standard refinancing provisions will be reinstated.

[28] Generic OFTO Licence TR11_V1 (ofgem.gov.uk): page 62

8. Conclusion and next steps

8.1 This decision document confirms our support for NESO in continuing to develop and work towards implementing the Early Competition regime in onshore electricity transmission networks. As stated above, our intention is to introduce a commercial framework to onshore Early Competition that is suitably appealing to potential bidders and investors while also protecting consumer interest by reducing costs and fostering innovation in the design and delivery of suitable onshore infrastructure projects.

8.2 To achieve this desired outcome, we recognise that the Early Competition regime relies on maximising competition as competitive pressure will ultimately drive consumer benefit. At the same time, we are aware of the possibility that at times, tender-specific circumstances may necessitate a review of the measures included in the overall commercial framework. Under such circumstances, we will engage further with the market prior to tender launch, if necessary, to drive the best value for money. Our objective is that the framework retains its commercial viability and balances appropriate risk allocation between the bidders and consumers with the necessary incentives, controls and regulatory oversight throughout the process.

8.3 As stated in Chapter 1 above, the legislative framework for onshore competition has now been established and the industry code modifications required to incorporate CATOs into the industry codes have been made. We have published our decision on the TO licence modifications[29] to establish their obligations in support of onshore competition and will shortly publish our decision on modifications to NESO's licence[30] to reflect its role as the onshore competition Delivery Body. We intend to consult on the generic CATO licence later this year and following a subsequent decision on the CATO licence the full policy, legislative and licensing framework for early onshore competition will be in place. We also intend, where appropriate, to publish guidance documents to accompany the CATO licence.

8.4 NESO is currently assessing projects from the Holistic Network Design Follow Up Exercise (following ongoing impact assessments and network re-design) for their

[29] Modifications to the special licence conditions in the electricity transmission licences: Early Competition in Onshore Electricity Transmission - Decision | Ofgem
[30] Modifications to the Electricity System Operator Licence: Early Competition in Onshore Electricity Transmission | Ofgem

suitability for competition and will then assess projects submitted into the tCSNP 2 Refresh,[31] expected to be published in 2026, with a view to identifying a first and subsequent pipeline of future projects for onshore competition.

8.5 We consider that introducing onshore Early Competition in electricity transmission can deliver significant consumer benefits, with potential to diversify deliverability and financeability risk, give access to new supply chains and sources of capital and secure inward investment into Great Britain, which can help deliver the government's Net Zero ambitions at the lowest possible cost to consumers.

8.6 We welcome the engagement we have had with industry to date and are happy to engage further with any party that has an interest in participating in onshore competition in electricity transmission.

[31] tCSNP Refresh methodology | National Energy System Operator