

Policy updates to Early Competition in onshore electricity transmission networks

Consultation Response



**Scottish & Southern
Electricity Networks**

TRANSMISSION

Thomas Johns,
Head of Onshore Competition
11 April 2024

Dear Thomas,

SEEN Transmission response to consultation on policy updates to Early Competition in onshore electricity transmission networks

This response is prepared on behalf of Scottish Hydro Electric Transmission plc ('SEEN Transmission') part of the SSE Group responsible for the electricity network in the north of Scotland. We appreciate the opportunity to respond to this consultation on policy updates to Early Competition in onshore electricity transmission networks.

We welcome the commitments in the Transmission Acceleration Action Plan to halve transmission build timelines to accelerate delivery of strategic network infrastructure critical to meeting Net Zero targets. Steps required to achieve the ambition in the TAAP should be completed before the introduction of the EC model. This includes completing the development and publishing of the SSEP and CSNP, streamlining of planning and consenting and establishing an embedded regulatory approval process as part of the CSNP.

The RIIO framework has a proven track record in incentivising timely delivery and value for consumers; it is also highly adaptable to changing policy and national targets. The majority of our current transmission project expenditure is competitively procured, with over 80% of our project expenditure being procured through the market. Early certainty of need confirming delivery by SEEN Transmission, and the deployment of our procurement strategy avoids the cost to consumers of failing to secure the supply chain, delays to delivery and consequential impacts on constraints, carbon costs and network security.

Managing and securing the supply chain is the key challenge in delivering a net zero power system by 2035. The early competition framework restricts early engagement and commitments to secure supply chain capacity to competitively won solutions, this will push back EISDs. The Electricity Commissioner was clear in his recommendation that TOs need to engage with the supply chain and secure the skills and resources needed for projects as soon as possible. Further, the ENC recommended TOs should be responsible for onshore reinforcements until competition has been established and supply chain constraints have been eased.

It is difficult to see how such supply chain relationships can be established in the proposed competition model, with an extended multiyear process for selecting preferred bidders. There currently seems to be no proposal for a clear criteria or assessment process that will allow for a phased approach. This uncertainty is exacerbated as the CSNP processes and ESO Commercial Framework are under development and will add additional time to project delivery as they are refined.

The Early Competition model remains insufficiently developed across multiple areas including project suitability criteria, consumer benefits and protections framework and mechanisms to accommodate change in the project lifecycle. A clear criteria and process for assessment of projects suitable for competition has not yet been established. There is no clarity yet on the process for delivery, body confirmation or the associated governance in the development of the competition assessments as part of the transitional arrangements for the tCSNP. It's not clear what further methodology other than the CBA will be applied as part of the next stage of the process.

The proposed CBA must have a counterfactual developed based on the RIIO model which includes scenario analysis to allow a more dynamic and fair comparison between the CATO model and RIIO model. This should include RIIO scenarios which include capital expenditure savings and operational efficiency. The wider qualitative assessment for CBA for project identification excludes risks related to large infrastructure delivery including planning delays, delay to generation projects, delays to planning consents and Supply Chain bottlenecks. Clarity is required on how these risks will be considered as part of a wider assessment to ensure Net Zero critical projects are not delayed.

Proposed COI measures for incumbent TOs restrict significant consumer benefits from the RIIO framework being incorporated in the EC model. A key objective of the competition regime should be to minimise the business impact on incumbent TOs and manage any conflicts of interest in a proportionate manner. We welcome the clarifications on competition policy provided by the RIIO Sector Specific Methodology Consultation. This includes confirmation that Ofgem expects that a large majority of projects will continue to be designed and procured by the existing TOs during RIIO-ET3, and Ofgem expects TOs to deliver infrastructure at pace.

The proposed COI mitigations could potentially impinge on legitimate commercial advantages that we have as a prospective bidder, specifically with regards to our ability to leverage our supply chain relationships, and the knowledge and experience of our staff. We strongly disagree with imposing limits on the movement of staff including system planning engineers involved in the collaborative process underpinning the NESO led CSNP.

CATO of Last Resort solutions should only be used in agreement with TOs/CATOs with no route for unilateral decisions by Ofgem on the delivery body. The proposed role of CATO of Last Resort (OLR) represents a significant logistical, technical and financial challenge to an appointed TO/CATO of OLR. Where a CATO fails, we do not support Ofgem making a unilateral decision on direct appointment of an incumbent TO if assets are in its Transmission Area. CATO projects are likely to have significant risk and liabilities and potential bespoke design solutions. In our view Ofgem should seek to establish clear criteria based on risk and liability for the competition to be rerun and the considerations on which projects to select and associated delivery timescales must allow for failure and restarting of the processes.

Our overall responses to the individual questions can be found in Appendix 1, we would welcome the opportunity to meet with Ofgem to further discuss any of the issues raised in this response.

Yours Sincerely,
Rebecca Middlemiss
Regulation Manager

Appendix 1 – Response to Consultation Questions

Q1. Do you agree that the proposed amendments by the ESO represent good value for money for consumers?

The EC-I Update, published on 1st February 2024 proposes a series of policy changes with changes to commercial model, end to end process and cost recovery mechanisms. No evidence of consumer benefit has been provided so far as part of the policy development beyond the initial policy impact statement for early competition. Therefore, we cannot provide a view on the value for money for consumers of the changes proposed as there is no comparable baseline value for money study. We consider this should be a role for the ESO to evidence why the proposals and changes are economic and efficient and represent value for money for consumers. We highlight two specific instances where value should be tested.

The key decision from the ECP position is the change in revenue period. The preferred position was that CATOs adopt a revenue period that matched the length of the need (up to a maximum of 45 years, in line with RIIO-2). The update proposes a fixed-term revenue period of 35 years (against an asset life of 40 years), with the residual asset value (5/40ths of opening asset value) to be paid in a lump sum at the end of the revenue period. The EC-I Update introduced the concepts of shorter revenue periods, more complex refinancing proposals and a five-year difference between the asset amortisation period and the revenue period.

Several respondents to ESO engagement suggested that a revenue period of 35 years was too long to attract competitive finance. We think that Ofgem should seek evidence on required revenue periods to attract competitive finance and ensure the financing and mechanism for transfer of residual value arrangements represents the best value for consumers and stakeholders.

We are of the view that the availability incentive does not represent value for money for consumers. The basic principle is that a 2% increase in availability results in a 5% increase in the proposed Tender Revenue Stream. This is based on the precedence in the OFTO regime and alignment with the broad requirements of the SQSS. This means that the incentive scales with project size, rather than the consumer value delivered by increases in availability. We think this is overly generous both in starting availability position and scale of incentive. For TOs the equivalent incentive is Energy Not Supplied, a measurable reliability metric in MWh, linked to the value of lost load. We are of the view that an ENS based incentive would offer better value to consumers rather than an availability assessment.

Q2. Do you agree with the ESO's proposal of alignment of Early Competition with the Centralised Strategic Network Plan (CSNP)?

Whilst we are committed supporting the development of the SSEP and the CSNP, and the NESO, care must be taken to ensure that decisions on contestability do not create unintended consequences and realistic expectations are set.

We continue to believe that the competition assessment undertaken in the CSNP against the competition criteria and tCSNP are too simplistic and could create unrealistic expectations for the market. The tCSNP identifies several projects that may be eligible for competition, even where these are upgrades to the existing network (BKUP, PKUP). It is not clear why these routes upgrades are considered separable, and no rationale has been provided as to why it is in the consumer's interest to contest network upgrades to existing routes and equipment.

Secondly the competition assessment undertaken identified a number of options that are considered *Proceed Critical*, where investment should be made in the next financial year to ensure the option's Earliest In Service Date ("EISD") remains on course. Contesting projects with *Proceed Critical* signals puts EISD at risk.

CSNP Competition Assessments/Regulatory Approval/Confirmation of Delivery Body

It's not clear how the CSNP process for regulatory approval will function and, as part of this, what governance and processes will be implemented for competition assessments by the NESO as an embedded part of the CSNP.

We look forward to stakeholder engagement and public consultation on the guidance, strategic governance and process for NESO identified system investments in the CSNP being confirmed, to allow project development to be undertaken by the appropriate delivery body. For the benefit of all stakeholders there should be commitment to engage in a transparent and meaningful way on the governance and process proposed for competition assessments, needs case approval and delivery body confirmation in the CSNP.

tCSNP2 Competition Assessments/ Regulatory Approvals/Confirmation of Delivery Body

It's not clear yet how the competition eligibility assessments as part of the transitional arrangements for the tCSNP will be applied despite commitments to engage with stakeholders. It's also not clear what further methodology other than the CBA will be applied as part of the next stage of the process.

There is pro-active engagement between Ofgem and TOs on the regulatory approach to new projects identified through the tCSNP2. Progress on those projects, however, is limited by an overhanging uncertainty of the delivery of those projects that have been identified as eligible for competition. We are unable to properly resource the development of these projects (for which we will need to seek allowances from Ofgem) or make supply chain commitments, whilst competition uncertainty remains. We encourage Ofgem to carefully consider the timing of competition announcements alongside tCSNP2 regulatory framework publications to ensure consistent messaging to stakeholders, and to provide as much certainty as possible.

Although the TAAP acknowledges the need for a transitional arrangement for the tCSNP, and that these arrangements should closely mirror the process for the CSNP, whatever process is ultimately implemented as a transitional measure for the tCSNP should not be assumed as established as the status quo for the CSNP.

CSNP Signals

The EC&I update provide view on application of certainty of need criteria. Ofgem's decision on implementing early competition considered that defining the "certainty" criteria as those projects that have a "Proceed", "Delay" or "Hold" signal provides an equivalent level of certainty to the ESO's proposal that the solution should be required in at least two FES.

As the development of the CSNP progresses, new signal definitions are being considered. For the purposes of the tCSNP, the ESO will apply this certainty criterion for projects that have a "Proceed – Critical", "Proceed – Maintain" and "Hold" signal in the tCSNP publication. The signals within the tCSNP are:

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

It is our view that project with Proceed – Critical signal, should be deemed exempt from early competition due to the requirements to invest in the next financial year to maintain EISD. We are of the view that clear 'Proceed- do not compete' signals should be developed, to allow consideration of additional factors beyond new separable such as planning and consenting.

Planning and Consenting Risks

There is currently no evidence that aligning the solution to be tendered with the CSNP and route endorsement via the CSNP process will simplify planning and consenting and this remains a significant challenge for timely project delivery. The SSEP and CSNP methodology including the SEA for each are not developed enough to say whether they will simplify planning and consenting and reduce consenting risks for specific projects.

The consultation document and EC-I Update also does not recognise the separate consenting regime in Scotland which is entirely different to England and Wales in terms of process:

In Scotland, our overhead lines are approved through the S37 consents process, governed by the Electricity Act 1989 at Westminster. Although the legislation is reserved to UK Government, consenting for S37 projects fall under the responsibility of the Scottish Government's Energy Consents Unit (ECU), with local planning authorities being statutory consultees along with other relevant bodies and community groups.

Separately, our substations are approved through the Town and Country Planning (Scotland) Act 1997. Consenting for these projects fall under the responsibility of the relevant local authority and their planning committee.

It should be noted that planning and consenting currently presents the biggest risk to the timely delivery of our £20bn 2030 programme, particularly risk of Public Local Inquiry (PLI). Reform and modernisation of the current consenting regime for transmission infrastructure in Scotland is therefore critical for the delivery of a decarbonised power system by 2035 and net zero by 2050. Without it, these targets will not be met.

It's not clear how the CSNP will support planning and consenting if action isn't taken to reduce the risk of these projects getting blocked by public inquiries and judicial review.

Q3. Do you agree with the ESO's proposal that only network solutions should be eligible for Early Competition?

This is a pragmatic choice by the ESO to recognise the differences in technologies and delivery timescales between network and non-network solutions. We support this choice and consider that bringing non network solutions into service that resolve constraints, reduce carbon costs and increase network security should be a high priority for the ESO.

As part of the CSNP methodology development there must be careful consideration of the interactions between network and non-network solutions. A whole system approach should be taken when the NESO is considering network and non-network solutions to ensure there is best value achieved from commercial services.

Q4. Do you have any material concerns with the conflict mitigation measures proposed by Ofgem for incumbent TOs and other bidders?

We welcome the change that now eliminates the role of TOs in assessing potential bids. As TOs will no longer be required to assess bidders' options as part of competition process, we think this significantly reduces potential conflicts of interest and the proposed mitigation measures must be revisited.

Overall, we think the COI measures proposed combined with an undefined compliance regime represent significant barriers to participation for regulated bidders. This is not compatible with the policy objective of maximising competition for strategic investments. The model should do more to facilitate TO bids, as this would represent a true counterfactual to a third-party competitive bid. Proposed mitigations potentially impinge on legitimate commercial advantages that we have as prospective bidder, specifically with regards to our ability to leverage our supply chain relationships, and the knowledge and experience of our staff.

We strongly disagree with imposing limits on the movement of staff, including system planning engineers involved in the collaborative process underpinning the NESO led CSNP. The CSNP is intended to be a collaborative process. Excluding bidders, including TO's and other third parties for having limited prior knowledge or experience of the project, because of participation in the collaborative CSNP process, is not

compatible with delivering cost effective consumer outcomes and it is not clear if effective compliance measures could be developed in this area.

Therefore, proposed business separation measures with limits on the movement of employees are disproportionate to the perceived conflict and will create unnecessary barriers to the efficient allocation of resources across teams. More widely this could also create barriers to normal attrition/recruitment and movement within organisations and the sector, for both TOs and CATOS. For the people and professions affected this is an overly restrictive solution.

Although we disagree that TOs or third parties contributing and collaboration as part of the CSNP present a conflict of interest, there are simple measures that could be taken to implement the time restriction by using stand still periods as part of the timetable for the CSNP outputs and the early competition framework.

We are of the view that only remaining perceived conflict of interest is the “Risk of cross-subsidy from RIIO”. Ofgem propose that the TO ‘bidding unit’ can be either a separate company within the TO group and to require separation of management structures between the TO and any bidding unit up to, but not necessarily including, the TO parent board. Again, we think this is disproportionate to the level of perceived risk, associated with participation in a tender process.

We accept that the TO and its bidding unit must be financially separated, meaning that the costs incurred by the bidding unit are not recovered from regulated revenue related to any other of the TO’s activities or assets. We agree with Ofgem that financial separation is covered by the obligations contained in Standard Licence Condition B5 (prohibition of cross-subsidies) and B6 (Restriction on Activity and Financial Ring Fencing) and this condition alongside the standard vires of Ofgem provides sufficient protection for consumers and potential bidders.

There is still the requirement to provide relevant network information during the initial tender stage and then throughout the tender process and we think to ensure a level playing field this information is best shared via the ESO implementing a secure data sharing portal and associated governance. The ESO should establish governance and arrangements to ensure that sensitive information on critical national infrastructure can be shared in a secure fashion and bidders are able to access but not store this information.

We accept that TOs are obliged to act fairly and transparently in supporting the tender process and that we will be required to submit a conflict mitigation methodology statement for Ofgem approval ahead of a tender to be able to bid. It would be more efficient for regulated bidders to be able to commit to a conflict mitigation methodology framework that would apply if a company chose to bid on any specific solution. This overarching framework should govern the approach for all bids, can be aligned with regular business separation reporting requirements and would remove the need for timing requirements relating to confirming intention to bid. In this, regulated bidders can set out how they manage conflicts of interest between bidding units and business as usual areas, and how they will manage information and staff commitment across projects.

Our fundamental ask is that Ofgem is not overly prescriptive in setting the solutions to conflict mitigation and should allow the TOs to present the case as to how the conflicts will be managed. We will not support a licence change that enacts detailed prescriptive conflict mitigation but accept that submitting a conflict mitigation methodology statement or establishing a framework is a prerequisite for bidding.

Finally, given this consultation provides limited details on the implementation of any perceived conflict of interest measure, these will need to be fully consulted ahead of any formal licence consultation.

Q5. What are your views on our proposed modification to put in place timing requirements for when the TO must confirm its intention to bid and put in place conflict arrangements?

Ofgem should allow regulated bidders to submit a mitigation methodology framework that would apply if a company chose to bid on any specific solution. This overarching framework should govern the approach for all bids, be aligned with regular business separation reporting requirements and would remove the need for timing requirements relating to confirming intention to bid.

Q6. What are your views on our proposed modification to restrict the transfer of TO employees between the Bidding Unit and the team undertaking the Tender Support Activities and pre-construction activity?

We do not support any restriction on the transfer of TO employee's due to employee involvement in the project's initial CSNP design for the reasons outlined above in Q4. Similarly, we cannot support the restriction on the transfer of employees from the bidding unit to the TO until the completion of a tender, this is overly restrictive given the proposed 158-week tender process.

As noted in our response to Question 4, there are simple measures that could be taken to implement the time restriction proposed for movement of people as part of the timetable for the CSNP outputs and the early competition framework. For example, a standstill period between CSNP outputs and a tender launch would achieve the same result and not impact on the NESO in their pre-tender activities. This would require the CSNP process to be robust enough to ensure the limited pre-tender activities required from the TO for the identified solution assessed as eligible for early competition are embedded early in the process to allow for the appropriate timing to be achieved.

As part of the procurement process, any questions and responses that include further information requests from TOs as part of the response to the question should be shared with all bidders as is standard practice in public procurement, removing potential conflicts of interest in this stage of the process.

Q7. What are your views on the proposed information sharing framework and, on the roles, assigned therein?

We have material concerns around the lack of detail on how decisions will be made on sharing of commercially sensitive information on critical national infrastructure. There is no detail on the proposed information sharing framework and this will have to be established. Our view is this must be led by the NESO, on NESO platforms, with the NESO controlling and managing access. The NDA developed by the NESO and the governance for the information sharing framework must be consulted on before implementation.

Our preference is that all information sharing required should be done as part of the CSNP before the tender launch to allow for a standstill period between CSNP outputs and tender launches. If non-disclosure agreements are to be used, it will be the TO that will enter into such agreements and the responsibility of the appropriate team to make sure that they are only sharing information to the extent that is required and allowed under the confidentiality agreement.

TOs and CATOs will also require the opportunity to view the NDA proposed to form part of the tender pack and make sure that it is acceptable to them. Appropriate timescales should be built into the end to end procurement process to allow scrutiny of the NDA for each tender.

Q8. Do you have any material concerns with the company structure proposed for raising debt for Early Competition?

There is insufficient detail on the proposed regulatory regime for CATOs, and associated requirements for TO/CATO certification. We agree that there should be no obligations on parties to take a particular approach. In our view Ofgem should not be prescriptive and we welcome that this is recognised in section 4.9 of the consultation. However, as the ESO note in their update, the legal and regulatory arrangements around the incumbent TOs in Scotland, means that a mandated SPV approach will not work from a level playing field perspective without changes being made in primary legislation or through company restructuring.

The ESO have confirmed that they are not clear on how TOs can allow project risk to be accurately priced in the debt competition, demonstrate the absence of cross subsidies in pricing equity and debt and demonstrate the ability to cleanly transfer the project on termination or retendering without using an SPV.

From the consultation the requirement is clear, projects much have delineated cost capture and a project-specific debt-raise to reduce the risk of unfair outcomes. The practical effect of the position taken in the consultation document is potentially the same as a mandated approach, as there may be no other viable

option than for Scottish incumbent TO's to take an SPV approach. This potential imbalance between regulated and commercial bidders highlighted in the ESO Update has not been addressed in the Ofgem consultation. For a robust enduring model, the ESO and Ofgem should clearly set out how primary legislation could correct this imbalance, the interactions with the proposed CATO regulatory regime and existing and future certification requirements and should invite views on this as a potential solution to barriers to entry for incumbent TOs as part of further consultations.

Broadly, our view is that any solution that allows for the isolation and ring-fencing of the project-specific assets from the wider TO asset base and allows debt to be raised against a specific project and reflect project-specific risk should be acceptable. Provided TOs can meet the requirements, including financial ring fencing there should be no restrictions on TOs company structure. The licence regime and associated certification requirements for incumbent TOs should reflect this.

Q9. Do you have any material concerns with the ESO's proposed methodology of its CBA model and the elements considered therein?

We have material concerns that there have been minimal changes to the CBA by the ESO despite significant concerns raised in stakeholder feedback. We have commissioned independent analysis that has identified the following material issues with the CBA which we believe would benefit from further development before it is applied, this analysis from Oxera is attached in Appendix 2, the report identifies the following key concerns;

The ESO's Impact Assessment is incomplete and does not address the impact of any reallocation of risk to consumers.

Key areas for development are:

- The impact of differences in risk allocation to consumers between delivery models on the costs and benefits arising from CATO delivery.
- The impact of any additional risks borne by incumbent TOs on the costs and benefits accruing to consumers as a result of a CATO delivery model.

Interaction effects between different assumptions underpinning the IA should be considered further.

Key areas for development are:

- The sensitivity range for the quantitative drivers of costs and benefit in the IA is underpinned in some cases by evidence that overstates the potential savings achievable under a CATO model, relative to a RIIO model.
- The impact of interaction effects between different assumptions underpinning the IA, particularly in terms of the commercial risk allocation, should be explored further and accounted for in the ESO's IA.
- The internal consistency of the cost and benefit sensitivity ranges assumed by the ESO should be explored further and reflected in the ESO's IA.

Market concentration of the supply chain may limit the realisation of potential benefits from competitive tendering delivery models.

Key areas for development are:

- The impact of supply chain constraints that exist in this market on the assumed benefits from CATO, in terms of revealing and driving greater construction efficiencies.
- The additional risks and challenges created by introducing a competitive tendering delivery model in a market with significant supply chain constraints.

Impact of CATO delivery on risk for incumbent TOs, and consequences for consumers.

Key areas for development include:

- Accounting for heightened cashflow exposure faced by incumbent TOs (relative to their revenues), given Ofgem's proposed TNUoS arrangements.
- Accounting for the scope for incumbent TOs to be adversely affected by, or inherit, assets in a poor condition.
- The risks and costs associated with the risk of a CATO entering financial distress and exiting the market.

The counterfactual developed based on the RIIO model is a simplification of the wider RIIO framework, it does not consider the capital expenditure savings and operational efficiency embedded in the RIIO framework.

We have previously presented evidence that the CAPEX savings to customers observed under the three Strategic Wider Works projects ranged from 11.4% to 16.7%, relative to the initial project bids put forward. This range represents a counterfactual of the CAPEX savings achievable under the RIIO-regime, relative to an early-stage cost estimate. When calculating the net benefits to customers it is important to consider that, in a regulated context, CAPEX savings are ultimately passed on to consumers through a depreciation schedule over the lifetime of the assets.

As part of the RIIO process, OPEX forms part of companies' TOTEX allowances, set at the beginning of the price control ex ante. Efficiencies are then passed on to customers when the allowance is re-set at the beginning of the following price control period. Such dynamics are an important feature of incentive regulation, and a relevant aspect to consider in defining a RIIO counterfactual. We have presented evidence that demonstrates savings from the annual efficiency challenge are passed on to customers and that the effect of compounding, under current efficiency assumptions, is able to lower the OPEX allowance by 37% in a 45-year period.

Our ask that the counterfactual developed based on the RIIO includes scenario analysis to allow a fair comparison between the CATO model and RIIO model. This should include RIIO scenarios which include capital expenditure savings and operational efficiency.

On security of supply, we remain concerned that competition could lead to additional risks that lead to consumer detriment in the form of asset failure or interruptions to supply. Any risk to reliability or security of supply will have a significant impact on the GB transmission system and these risks must be considered carefully and included within the CBA. While we note that this is a difficult area to quantify, the use of the Value of Lost Load (VOLL) is one possible way to quantify the risk to consumers related to security of supply.

We are concerned that the competition model proposed by the ESO could lead to CATOs prioritising cost savings over maintaining close relationships with local communities and stakeholders. TOs fear that CATOs, driven solely by the goal of designing, building, financing, and operating transmission assets at the lowest cost, may neglect the broader social and environmental considerations that TOs traditionally prioritise. Consequently, there is uncertainty about whether CATOs will uphold the same standards of community engagement and environmental considerations as established TOs.

Wider qualitative assessment for CBA for project identification excludes risks related to large infrastructure delivery including planning delays, delay if generation projects, delays to planning consents, Supply Chain bottlenecks. –We recognise that the Ofgem view is that Project specific risks considered inherent in development of high value projects apply to status quo and not specific to EC model. Risks to development of high value projects can be mitigated by TOs through extensive early development and engagement and this will be excluded in the proposed EC model.

Q10. Do you have any material concerns with the proposed TNUoS revenue recovery model for a CATO similar to the OFTO model?

We have material concerns around the TNUoS proposals and the impact these will have on TOs. There is insufficient detail on how the ESO IA will account for heightened cashflow exposure faced by incumbent TOs (relative to their revenues). These concerns are set out in detail from Oxera is attached in Appendix 2.

Q11. Do you have any material concerns about the proposed approach and principles in dealing with a situation of CATO/tender failure?

We do have material concerns on the CATO of last resort proposals, there is a lack of detail on the proposed solutions and insufficient consideration of the complexities that might result during project failure at different stages. We refer to material concerns in our response to Q9, these are set out in detail in the analysis from Oxera attached in Appendix 2

There is insufficient detail on the Impact of CATO delivery on risk for incumbent TOs, and consequences for consumers.

Key areas for development include:

- Accounting for heightened cashflow exposure faced by incumbent TOs (relative to their revenues), given Ofgem's proposed TNUoS arrangements.
- Accounting for the scope for incumbent TOs to be adversely affected by, or inherit, assets in a poor condition.
- The risks and costs associated with the risk of a CATO entering financial distress and exiting the market.

Where there is Failure of the Tender Process we support that the tender should be rerun if timescales allow. This should be built into the timescales for the tender process, the end to end process doesn't account for this now. Failure requiring a restart should be considered at each stage gate with varying risk assessment established according to narrowing window for delivery.

For failure pre-construction, our preferred option would be that the competition process is rerun and a new CATO is appointed. If a new CATO cannot be appointed due to market appetite the need should be progressed through the RIIO-3 price control via a specific reopener and the major projects regime.

We are of the view that any design artefacts or intellectual property developed by a CATO that is subsequently failed will not be reusable and development stages would need to be repeated. These are complex projects, supply chain commitments and design would be unknown to a CATO of last resort.

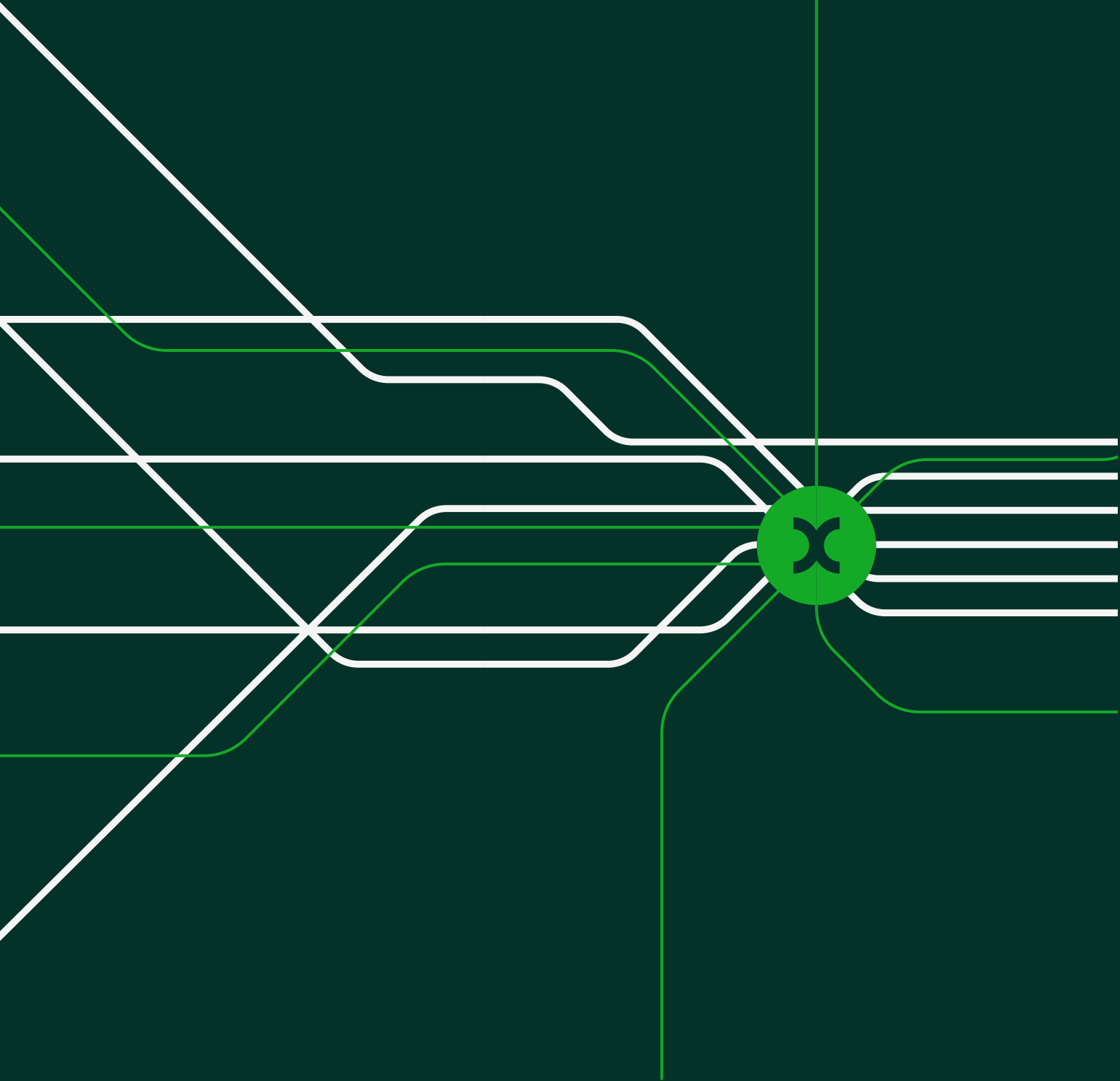
These projects would require to be funded through SPVs or corporate borrowing, if we are appointed as CATO OLR, there could also be an issue around funding available for taking on such projects that we haven't necessarily bid for or chosen for. The requirement to take over a CATOs assets as they have failed could also prove problematic for a variety of reasons including the risk to our reputation if such assets are faulty or not to the standard we require.

Appendix 2 – Oxera – Review of policy updates to early competition in onshore electricity transmission.

Review of policy updates to Early
Competition in onshore electricity
transmission



16 April 2024



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1 Introduction

Following its March 2022 decision on Early Competition, Ofgem has published a consultation calling for input on a number of points that were referred for further consideration.¹ SSE has asked Oxera to evaluate these changes and updates, focusing on two key areas of interest.

- The National Grid Electricity System Operator (ESO)'s update to its Cost Benefit Analysis (CBA) framework in its recently published Early Competition Implementation Update.² This framework will be used to determine the suitability of projects to be put forward for competition.
- The proposals put forward by ESO and Ofgem in relation to (i) mitigating the risk of non-delivery by a Competitively Appointed Transmission Operator (CATO); and (ii) provisions for an operator of last resort (OLR).³

The focus of our review has been to identify areas of the ESO's impact assessment that would benefit from further development before being applied to determine appropriate projects to target for Early Competition. In our evaluation, we draw from our previous submission on the 2022 impact assessment methodology,⁴ noting the ESO's responses in appendix one.⁵

The rest of this report is structured as follows.

- Section 2 sets out our summary of the main overarching areas of the ESO's impact assessment framework that require further development.
- Section 3 expands on a key area we identify for further development—the impact of CATO delivery on the risks faced by

¹ Ofgem (2024), 'Early Competition in onshore electricity transmission networks: policy update,' <https://www.ofgem.gov.uk/publications/early-competition-onshore-electricity-transmission-networks-policy-update> (accessed 4 April 2024).

² National Grid ESO (2024), 'Early competition', www.nationalgrideso.com/future-energy/projects/early-competition#Document-library (accessed 4 April 2024).

³ National Grid ESO (2024), 'Early competition', www.nationalgrideso.com/future-energy/projects/early-competition#Document-library (accessed 4 April 2024); Ofgem (2024), 'Early Competition in onshore electricity transmission networks: policy update,' <https://www.ofgem.gov.uk/publications/early-competition-onshore-electricity-transmission-networks-policy-update> (accessed 4 April 2024).

⁴ Oxera (2022), 'Assessing the Benefits of Competition in Onshore Transmission', 22 July.

⁵ National Grid ESO (2024), 'Early Competition Plan Cost Benefit Assessment: Responses to consultation & summary of updates to methodology', February, www.nationalgrideso.com/document/301776/download (accessed 4 April 2024).

incumbent TOs, and consequently by consumers—drawing on Ofgem’s OLR proposals.

- Section 4 closes with a review of some of the key specific parameters of the ESO’s updated quantitative impact assessment—in particular on construction cost/CAPEX savings, the scope for the cost of capital bid by a CATO to be lower or greater than Ofgem’s allowed RIIO WACC and assumed operating expenditure savings. This draws from our previous report and appendix one of the ESO’s EC-I impact assessment update.⁶

⁶ Oxera (2022), ‘Assessing the Benefits of Competition in Onshore Transmission’, 22 July. National Grid ESO (2024), ‘Early Competition Plan Cost Benefit Assessment: Responses to consultation & summary of updates to methodology’, February, www.nationalgrideso.com/document/301776/download (accessed 4 April 2024).

2 Key areas of the ESO's impact assessment for further development

2.1 The ESO's Impact Assessment is incomplete and does not address the impact of any reallocation of risk to consumers

The stated aim of the ESO's CBA methodology is to 'calculate the net cost to consumers to deliver the [onshore transmission investment] need through early competition', relative to a RIIO counterfactual.⁷ However, the ESO's approach takes a relatively narrow view of the incremental costs and benefits that might arise from competitive delivery. In particular, the proposed impact assessment framework only quantifies ex ante direct costs associated with the specific project being considered for competitive delivery.

Through Transmission Network Use of System (TNUoS) charges, consumers pay the total costs associated with delivering, financing, maintaining and operating the GB transmission system.⁸ An impact assessment that does not consider the full range of costs and risks allocated to consumers under a CATO delivery model—either directly or via residual risks held by incumbent TOs—is necessarily incomplete.

Taking a narrower project-specific view, as the ESO's currently proposed impact assessment methodology does, may tend to overstate the benefits of developing a CATO regime that shifts risks and costs to other parties. Some previous competitive processes for tendering infrastructure have tended to reallocate risk towards customers, which would not be captured in the ESO's current CBA methodology.

Examples of competitive tendering regimes that include a more favourable risk allocation for new project developers than the status quo regulatory model include the offshore transmission operator (OFTO) regime (which the ESO explicitly draws on in estimating parameters within its quantitative impact assessment) and the design of the Thames Tideway project.

In evaluating the benefits of the OFTO regime, Ofgem/CEPA stated that:

⁷ National Grid ESO (2024), 'Early Competition Plan Cost Benefit Assessment Methodology: Onshore electricity transmission', February, p. 3, <https://www.nationalgrideso.com/document/301781/download> (accessed 3 April 2024).

⁸ Consumers also indirectly pay for TNUoS charges levied on generators through wholesale prices.

To an extent, however, the benefits from OFTO competition versus the benefits of the OFTO regulatory approach (which helped create a risk allocation between investors and customers that is obviously attractive to investors) *cannot be separated*. The benefits of competition are a function of the market offering developed by Ofgem, *whilst the value for money of the OFTO market offering is itself a function of attractive features of the regime to investors* having had the opportunity to be tested via competition.⁹ [emphasis added]

In other words, part of the perceived value for money relating to the OFTO regime is a product of risk-sharing decisions rather than competition itself.

The risk-sharing arrangements for the Thames Tideway Tunnel were also structured so that consumers bore a greater share of company cost overruns (60% vs 25% that would have applied to the incumbent Thames Water). In the case of costs that were separable and uncontrollable, an even higher sharing factor applied for Bazalgette Tunnel Limited (BTL) of 85%. This materialised in the context of £200m in overspend relating to the COVID-19 pandemic, of which up to 85% was passed on to consumers as opposed to as little as 25% in a regulatory counterfactual.¹⁰

While, it is unclear from the existing proposals the extent to which the overall balance of risk allocated to consumers will be smaller or greater under a CATO model (relative to RIIO delivery), factors that may serve to increase the consumer risk allocation, relative to a RIIO delivery model, include:

- the proposal for the competition to be run post-initial design;
- the inclusion of an additional allowance available for cost overruns for up to 40% of forecast construction costs.

⁹ Ofgem/CEPA (2016), 'Evaluation of OFTO Tender Round 2 and 3 Benefits', p. 45, www.ofgem.gov.uk/sites/default/files/docs/2016/03/ofgem_tr2_tr3_evaluation_final_report.pdf (accessed 4 April 2024).

¹⁰ Ofwat determined that consumers should bear 85% of the overspend between mid-March 2020 and 24 July 2020, and 80% between 25 July 2020 and 30 June 2021. Ofwat (2019), 'PR19 final determinations: Securing cost efficiency technical appendix', December, p. 140, <https://www.ofwat.gov.uk/wp-content/uploads/2019/12/PR19-final-determinations-Securing-cost-efficiency-technical-appendix.pdf>; Ofwat (2021), 'Consultation on amending Tideway's project licence', April, <https://www.ofwat.gov.uk/consultation/consultation-on-amending-tideways-project-licence/> (accessed 4 April 2024); Ofwat (2022), 'Reasons for amending Tideway's project licence', March, <https://www.ofwat.gov.uk/wp-content/uploads/2022/03/Reasons-for-amending-Tideways-project-licence.pdf> (accessed 4 April 2024).

Once the arrangements for risk sharing have been defined, these should be accounted for as either costs or benefits within the impact assessment.

Consumers can also be exposed to additional risk indirectly when risk is transferred from the CATO to the TOs. Any increase in risk exposure for incumbent TOs would be expected to feed through to their required revenues through the allowed return, any additional risk allowances they require if CATO delivery creates asymmetric risks and any sizeable outturn costs that arise through the return adjustment mechanism (RAM). We set out these risks passed to TOs in Section 3.



Box 2.1 Key areas for development to secure the completeness of the ESO's Impact Assessment

- The impact of differences in risk allocation to consumers between delivery models on the costs and benefits arising from CATO delivery.
- The impact of any additional risks borne by incumbent TOs on the costs and benefits accruing to consumers as a result of a CATO delivery model, as set out in section 3.

2.2 Assumptions underpinning the IA should be considered further

The ESO's IA does quantify a number of potential cost and benefit areas that directly relate to CATO delivery. In particular, the proposed quantitative methodology covers the following areas:

- potential construction cost savings achieved as a result of the competitive process, relative to scrutiny under RIIO;
- scope for a different cost of capital as an outcome of a competitive bidding process, relative to the RIIO allowed return;
- potential operating and maintenance cost savings as a result of the competitive model;
- bidder costs;
- constraint costs (although these are project-specific, and there is minimal detail on the approach provided at this stage).

These are important cost/benefit areas that should be captured in a CBA of CATO delivery relative to RIIO delivery. However, we identify two

material concerns with the evidence base supporting the estimates of these savings.

2.2.1 Risk that ESO overstates the benefits of CATO delivery

First, the evidence used to support the potential CAPEX and OPEX efficiency savings risks overstating the potential benefits of CATO delivery, relative to a RIIO counterfactual. For both CAPEX and OPEX, the ESO assumes the same one-sided range for the potential efficiency savings delivered through competition of 5%–20%.

However, in both cases this range is based on disregarding a number of studies that identified limited/no benefits of competition (i.e. 0%). Moreover, the comparators used are taken from different commercial contexts (public delivery rather than RIIO); sectors (transport and social infrastructure) and jurisdictions (Africa, Asia & Australia, Europe, Middle East, North America and South America).

In describing how it has formed these sensitivity ranges, the ESO motivates its decision not to consider any potential offsetting benefits from RIIO on the following basis:

It is proposed by the TOs that capex savings achieved through competition should also be netted off against savings achieved through a subset of delivery models within the regulatory regime namely [Strategic Wider Works] SWW. This remains an imperfect comparison as we compare early competition to general delivery within the regulatory regime.

However, the ESO does not describe how a set of construction savings derived based on comparison to public sector procurement processes or North American system operator cost estimates provides a better proxy for general delivery within the RIIO regulatory regime than the SWW examples it rejects.

2.2.2 Lack of consideration of interaction effects between different assumptions

Second, the approach to estimating the costs and benefits within the quantitative impact assessment looks at each of these individual elements in isolation, rather than considering the trade-offs between the risk allocation to bidders, the required return (across cost of capital and cost of debt), a feasible level of gearing and the scope for bidders to bid construction and operating cost bids below RIIO counterfactuals.

For example, the assumptions around the gearing range are based on one set of Public–Private Partnership (PPP) and Private Finance Initiative

(PFI) contracts, the cost of equity range around another set and the cost of debt based on a further different set of tunnelling and interconnector projects. OPEX efficiencies are based on bids observed in the first OFTO tender round, while CAPEX efficiencies are based on analyses from Australia, Canada, the EU and the World Bank comparing PPP processes with government procurement. Each of these evidence bases entail different allocations of commercial risk, and combining them may not create a realistic CATO factual scenario.

In Section 4 we expand on these issues around the selection of evidence and data within the IA. These issues, when taken together with the concerns around the completeness of the ESO's IA outlined in Section 2.1, indicate that further analysis needs to be developed to ensure that the IA represents a full assessment of the cost to consumers of delivering a project through the CATO delivery model, relative to a RIIO delivery model.



Box 2.2 Key areas for development to secure the completeness of the ESO's Impact Assessment

- The sensitivity range for the quantitative drivers of costs and benefit in the IA is underpinned in some cases by evidence that overstates the potential savings achievable under a CATO model, relative to a RIIO model.
- The impact of interaction effects between different assumptions underpinning the IA, particularly in terms of the commercial risk allocation, should be explored further and accounted for in the ESO's IA.
- The internal consistency of the cost and benefit sensitivity ranges assumed by the ESO should be explored further and reflected in the ESO's IA.

2.3 Market concentration of the supply chain may limit the realisation of potential benefits from competitive tendering delivery models

A key driver of increased cost pressures and lead times in the delivery of transmission infrastructure is the large increase in demand across European and international TOs to significantly increase the size of networks in the context of a constrained supply chain. This increase in

demand, driven by simultaneous acceleration of the energy transition, is likely to remain high and persistent over the coming decades.

For many of the required inputs for delivery of new transmission infrastructure, such as cables and switchgear, there are a very limited number of Original Equipment Manufacturers (OEMs) that TOs have used in the past. This reflects the requirements that TOs need to deliver against in terms of network reliability and service—as set out in the Security and Quality of Supply Standards (SQSS) that TOs are held accountable to in their licences. A licensed CATO would be held to the same SQSS standard, and would be expected to face similar constraints.

Over time, existing suppliers would be expected to expand production and it may be possible to integrate new suppliers into the market. However, in the shorter term, neither avenue may offer a cost-effective delivery option.

Where a constrained supply chain persists, this may have significant implications on the viability of CATO as a feasible delivery model. It may not be in the interest of suppliers to offer competitive quotes to multiple parties, or to provide firm estimates of required costs on a conditional basis to parties participating in a bidding process rather than to incumbent TOs with assured delivery. TOs and CATOs operate in the context of a European market, in which they are competing against TOs with more certainty in their order books to attract the interest of suppliers with a high degree of bargaining power.

This market context has the potential to limit the scope for CATO delivery models through the following channels.

- Supply-chain constraints may lower the number of bidders, to the extent that competition is negatively affected.
- Suppliers may offer less favourable contracts to bidding parties (to reflect the uncertainty of winning), relative to a guaranteed RIIO delivery model.
- Suppliers may not commit to prices on a conditional basis (i.e. pre-competitive tender), exposing bidders and/or consumers to post-tender risk associated with suppliers revising quotes. This could either be priced into bids ex ante or may serve to increase the risk that a CATO exits the market early and triggers OLR provisions.

We note that none of the empirical evidence used to motivate the range of potential CAPEX efficiency savings that might be achieved by a CATO

delivery model account for recent supply chain constraints in transmission. As we outline in section 4.1, all of the empirical evidence is taken prior to 2020, and the studies that the ESO interprets as providing support for a positive efficiency difference from competition, are from outside GB and focus almost entirely on non-energy sectors.¹¹

To the extent that supply-chain constraints are a key driver of increasing costs and longer lead times to deliver new transmission infrastructure, working with incumbent TOs to modify existing regulatory models to better adapt to these market conditions may represent better value for money than developing a competitive delivery model that will be constrained by the same issues—and potentially exacerbate them.

We note that late and very late competition models that primarily tender for financing and/or operations would not be subject to market-concentration concerns of this nature.



Box 2.3 Key areas for development to secure the completeness of the ESO's Impact Assessment

- The impact of supply chain constraints that exist in this market on the assumed benefits from CATO, in terms of revealing and driving greater construction efficiencies.
 - The additional risks and challenges created by introducing a competitive tendering delivery model in a market with significant supply chain constraints.
-

¹¹ As we set out in section 4, the two studies that focus on GB data identify no evidence of efficiency savings from competition.

3 Impact of CATO delivery on risk for incumbent TOs, and consequences for consumers

In this section, we expand on the further development needed in the ESO's IA to recognise the impact of CATO delivery on the risks faced by incumbent TOs and, as a consequence, by consumers.

There may be a number of risks that CATO delivery poses for the incumbent TOs, that are currently unrecognised in the ESO's proposed IA methodology. In section 3.1—including costs associated with the differential treatment of cashflow risk between CATOs and TOs, interfacing costs and risks associated with third-party delivery of a component of an incumbent's network. We also focus on one key area of risk in this report—the potential costs that would be borne by an incumbent TO acting as an OLR in the event of a CATO failure.

3.1 Incumbent TO risk exposure

3.1.1 Under-/over-recovery of TNUoS

Under RIIO, in any year in which there is an under-recovery of the TNUoS, a TO will receive less than the annualised allowed revenue to which it is entitled and the ESO will adjust future TNUoS charges so that they are made whole. By contrast, OFTOs receive their full stipulated revenues even during the periods of under-recovery of TNUoS by the ESO.¹²

Incumbent TOs are therefore exposed to cashflow risks under the current arrangements, which scale with the scope for the ESO to act in error (in terms of forecasting demand) and the size of revenues allocated to OFTOs.

Ofgem sets out its view that exposing CATOs to the revenue uncertainty that is faced by TOs will make the bids less efficient and will not be in the interests of consumers. Ofgem expects that the company structure and capitalisation of a CATO will be closer to an OFTO. Therefore, Ofgem's view is that CATOs should mirror the process for OFTOs and receive revenues in full annually. This protects CATOs from under-/over-recovery of revenues through TNUoS charges set by the ESO. (This applies even if the TO is the successful bidder.)

¹² Ofgem (2024), 'Consultation on policy updates to Early Competition in onshore electricity transmission networks', February, www.ofgem.gov.uk/sites/default/files/2024-02/Consultation%20for%20publication%20final.pdf (accessed 5 April 2024).

As a consequence, the three incumbent TOs will retain all of the revenue uncertainty that arises from fluctuations created through TNUoS, while CATOs are insulated. As the proportion of projects undertaken through CATO increases, the residual risk arising from TNUoS is distributed across the remaining non-CATO projects, which are all delivered by TOs. Therefore, relative to their revenue, the risk exposure for a TO increases significantly as the proportion of projects undertaken through CATO increases. The magnitude of the risk depends on the proportion of CATO volumes relative to the aggregate electricity transmission sector. The ESO's IA should quantify the incremental cashflow risk that results from this.

As we outline in section 2.1, Ofgem/CEPA highlights that the proposed benefits of CATO due to competition should also be distinguished from the benefits created by the differential risk treatment applied to CATOs compared to TOs under RIIO.¹³ The current impact assessment appears to conflate these two benefits.

3.1.2 Exposure to CATO asset condition during and after the 35-year tender period

The current implementation plan for assets delivered through a CATO model is that they will be operated by the CATO for a fixed-term period of 35 years. Following 35 years, a payment would be made to the CATO based on the residual asset value using TNUoS charges, and there would be a decision point for the ESO to decommission the assets, extend their operation with the incumbent TO or re-tender asset operation and maintenance through a new CATO process.¹⁴ Ofgem may also use the CATO OLR process summarised below, which we address in sections 3.2 and 3.3 below.¹⁵

During the period of CATO operation and during the transfer of the asset, the incumbent TO may be exposed to the condition of CATO assets and how these are managed. One example of such a risk exposure would be through the Energy Not Supplied (ENS) Outcome Delivery Incentive (ODI-F). At RIIO-2, the ENS ODI-F exposes an incumbent TO to penalties for interruptions to supply up to a maximum (collar) of 1.9% of ex-ante base revenue. If a CATO asset were to fail and contribute to ENS, within the current regulatory framework and within the arrangements proposed by Ofgem and the ESO to date, there

¹³ Ofgem/CEPA (2016), 'Evaluation of OFTO Tender Round 2 and 3 Benefits', p. 45.

¹⁴ Ofgem (2024), 'Consultation on policy updates to Early Competition in onshore electricity transmission networks', February, para. 7.13, www.ofgem.gov.uk/sites/default/files/2024-02/Consultation%20for%20publication%20final.pdf (accessed 5 April 2024).

¹⁵ Ibid., para. 7.14.

is no clear avenue by which an incumbent TO could be made whole for penalties accruing as a result of the actions of a CATO. This might arise if a CATO is not sufficiently incentivised to maintain the assets it manages.

At the point at which a CATO asset is transferred to an incumbent TO (assuming a decommissioning, re-tendering or CATO OLR avenue is not pursued), the TO could also face additional costs to restore the asset to an adequate condition. It is not clear from the arrangements set out by the ESO and Ofgem how this risk has been mitigated, and therefore the extent to which risk provisions need to be put in place and funded through the RII price control.

3.2 Risks of CATO failure

In appendix one of the EC-I update, 'Responses to consultation & summary of updates to the methodology',¹⁶ the ESO sets out its response to concerns raised by TOs regarding various risks that TOs consider should be included in the CBA. In particular, the ESO responds in two sections to the risks that third-party ownership of assets pose to the network in terms of asset failure and the risk of financial distress of a CATO, including the resulting impacts and costs.¹⁷

The ESO sets out that:

Our Early Competition tender process allows for a Pre-Qualification Questionnaire (PQQ) process to ensure those competing in the bid have the financial capability and standing to deliver and maintain their proposed solution. We believe this mitigates this risk.¹⁸

The ESO also outlines that asset failure risks will be mitigated through the technical evaluation of bids and various licence obligations and requirements imposed on CATOs.

The assumption that complete risk mitigation can be achieved for both financial distress and asset failure is likely to be too strong. It is not

¹⁶ National Grid ESO (2024), 'Early Competition Plan Cost Benefit Assessment: Responses to consultation & summary of updates to methodology', February, p. 12, www.nationalgrideso.com/document/301776/download (accessed 4 April 2024).

¹⁷ National Grid ESO (2024), 'Early Competition Plan Cost Benefit Assessment: Responses to consultation & summary of updates to methodology', February, pp. 12–13, www.nationalgrideso.com/document/301776/download (accessed 4 April 2024).

¹⁸ National Grid ESO (2024), 'Early Competition Plan Cost Benefit Assessment: Responses to consultation & summary of updates to methodology', February, p.12, www.nationalgrideso.com/document/301776/download (accessed 4 April 2024).

clear that a PQO will be sufficient to prevent future financial distress of a CATO, and the scope for such financial distress does not appear to be included in the ESO's CBA when appraising the relative merits of a CATO.

Indeed, in Ofgem's 2022 IA underpinning its decision to progress a model of Early Competition, Ofgem makes clear that 'there is a risk introduced with early competition for delay and potential non-delivery.'¹⁹ Ofgem expects that this can be offset in several ways, with some of the measures expected to occur as part of the bidding process. This will include specification in the tender documents on required levels of financial resilience, monitoring and reporting arrangements. As with OFTOs, CATO bidders will also be required to provide and maintain intervention plans to address financial or performance concerns as soon as possible.²⁰ However, Ofgem also expects the ESO to consider these risks in its CBA and these risks appear to have been ignored as a result of the ESO's assumption of complete risk mitigation.

The risk of project failure may also increase when a CATO model is used compared to delivery by a TO under RIIO. The ESO expects competitive pressure and the involvement of new parties to stimulate innovation and generate new solutions to meeting the system needs through technology, design, supply-chain management, raising of finance and operations.²¹ Similarly, Ofgem considers that: 'Early Competition can maximise the level of innovation delivered through the competitive process.'²² However, compared to RIIO, the competitive bidding process—combined with complex and innovative approaches—could increase the likelihood and costs of financial distress through the bids that are submitted and the nature of developing novel solutions.

Consultation responses also identified that the allocation of risk between the parties in a CATO framework will vary from a RIIO framework and this appears to be under-developed. The ESO recognises

¹⁹ Ofgem (2022), 'Impact Assessment on developing arrangements to allow for early competition to be applied to future projects on the onshore electricity transmission network', p. 21, www.ofgem.gov.uk/sites/default/files/2022-03/Transmission%20Early%20Competition%20IA.pdf (accessed 4 April 2024).

²⁰ Ofgem (2024), 'Consultation on policy updates to Early Competition in onshore electricity transmission networks', February, para. 7.2, www.ofgem.gov.uk/sites/default/files/2024-02/Consultation%20for%20publication%20final.pdf (accessed 5 April 2024).

²¹ National Grid ESO (2024), 'Early competition', www.nationalgrideso.com/future-energy/projects/early-competition#Document-library (accessed 4 April 2024).

²² Ofgem (2024), 'Consultation on policy updates to Early Competition in onshore electricity transmission networks', February, p. 12.

that the risk allocation will need to be considered 'in respect of the evolving commercial model which is currently under development.'²³

In this context it is important to recognise that if we insulate the CATO from bearing risk, the underlying risk is borne by a different agent rather than being eliminated and may be passed on to consumers. It is therefore not clear that shifting risk to other parties represents a clear improvement on the current balance of risk allocation under the RIIO regime. As set out in section 2.1, the impact of the COVID-19 pandemic on the Thames Tideway Tunnel project demonstrates the scope for consumers to face substantive cost increases as a result of bearing a greater proportion of risk than under the regulatory status quo.

3.3 Costs associated with failure of a CATO, and implications for the CBA

As summarised above, in its 2024 consultation Ofgem makes explicit provisions for the failure of a CATO process during the bidding stage and/or during construction or operation. It therefore proposes several measures to mitigate the likelihood and potential costs of failure.

In addition to the measures that will be part of the bidding process (summarised in section 3.2 above), Ofgem also outlines an OLR process that is intended to minimise the risk of an asset becoming stranded or project timelines being delayed.²⁴ Under Ofgem's proposed OLR process, the assets and revenue would be transferred from the original CATO to a new 'CATO OLR' (which might be an incumbent TO) where the original CATO is unable to deliver the requirements in its licence.

Ofgem envisages the CATO OLR process could be run through a competitive bidding process, where such a process would be in the interest of consumers. It also reserves a range of other potential options to directly appoint an existing licensee (one of the three TOs or an existing CATO), or reverting to delivery through existing RIIO mechanisms.

There a balance to be struck between retaining regulatory flexibility in the event of the failure of an asset and providing sufficient forward guidance to parties that might be appointed as CATO OLRs. Under the

²³ National Grid ESO (2024), 'Early Competition Plan Cost Benefit Assessment: Responses to consultation & summary of updates to methodology', February, p. 13, www.nationalgrideso.com/document/301776/download, (accessed 4 April 2024).

²⁴ Ofgem (2024), 'Consultation on policy updates to Early Competition in onshore electricity transmission networks', February, www.ofgem.gov.uk/sites/default/files/2024-02/Consultation%20for%20publication%20final.pdf (accessed 5 April 2024).

current arrangements, it is not clear under what circumstances a TO would be required to act as a CATO OLR (and therefore the funds it needs to make available for such events).

There is also uncertainty regarding the financial risk that a CATO OLR would face. If an OLR is required, Ofgem expects the two parties (original CATO and CATO OLR) to agree on the value of the transmission assets and any transfer payments. In the event that the two parties are unable to agree, Ofgem states that it will set the terms for any asset value transfer.²⁵ This will be particularly relevant in the case that the trigger for a CATO failure is financial distress at the construction stage as a result of adverse market conditions not factored into the original CATO's bid. In this instance, the pre-agreed Tender Revenue Stream may not be sufficient to cover the costs that will be incurred by the CATO OLR in taking the project to completion.

Given the proposed OLR arrangements, there are three costs that could result from a CATO failure driven by adverse market conditions or an overly optimistic bid.

- The cost to the CATO OLR of the asset transfer from the failed original CATO—including the cost of having the available financial reserves. These financial reserves costs would be incurred regardless of whether a failure occurs, but may be increasing in the perceived likelihood of failure.
- Any higher costs of project delivery relative to the original bid—which, depending on Ofgem's OLR arrangements, will either need to be recovered from consumers at the point of failure or require that prospective CATO OLRs be compensated for the asymmetric risk they are exposed to through potential appointment to a loss-making CATO OLR. Depending on these arrangements, such costs might only be incurred in the event of failure, or require compensation regardless of whether a failure occurs.
- The deadweight loss associated with duplicated activities across the original CATO and CATO OLR, such as planning teams and engagement with the supply chain. As above, these costs would need to be recovered from consumers at the point of

²⁵ Ofgem (2024), 'Consultation on policy updates to Early Competition in onshore electricity transmission networks', February, p. 52, www.ofgem.gov.uk/sites/default/files/2024-02/Consultation%20for%20publication%20final.pdf (accessed 5 April 2024).

failure or require that prospective CATO OLRs be compensated for the asymmetric risk.

These prospective drivers of cost would benefit from being developed further by Ofgem and the ESO—in particular any incremental costs that the risk of CATO failure implies for higher costs (or risks) borne by consumers under a CATO delivery model.



Box 3.1 Key areas for development to secure the completeness of the ESO's Impact Assessment

- Accounting for heightened cashflow exposure faced by incumbent TOs (relative to their revenues), given Ofgem's proposed TNUoS arrangements.
 - Accounting for the scope for incumbent TOs to be adversely affected by, or inherit, assets in a poor condition.
 - The risks and costs associated with the risk of a CATO entering financial distress and exiting the market.
-

4 The selection and use of evidence within the quantitative IA

In this section, we provide a review of the sensitivity ranges for the quantitative CBA proposed in the ESO's methodology document,²⁶ with reference to our previous report²⁷ and the ESO's review of responses to its consultation.²⁸ Whereas in sections 2 and 3 we primarily focused on cost and benefit areas that are potentially missing from the ESO's quantitative assessment, we focus here on areas where the ESO has a proposed quantified range for the costs or benefits arising in a certain area.

We address the following areas, in turn:

- potential construction cost savings achieved as a result of the competitive process, relative to scrutiny under RIIO;
- potential operating and maintenance cost savings as a result of the competitive model;
- scope for a different cost of capital as an outcome of a competitive bidding process, relative to the RIIO allowed return;
- bidder costs;
- constraint costs.

4.1 Construction/capital expenditure

The ESO proposes using a sensitivity range of **5% to 20% (central estimate 10%)** for the estimated CAPEX savings it expects to be delivered under competition, relative to a RIIO counterfactual. Applying a 'worst case' scenario for CATO that it will still deliver construction costs 5% cheaper than any regulated counterfactual implies a high degree of confidence in the ability of the competitive tendering process to identify innovative and/or more efficient delivery approaches than incumbent TOs, despite factors such as economies of scale and specialised expertise. In its literature review, the ESO provides nine studies with a range of 0–30.8% to support its proposed sensitivities.

²⁶ National Grid ESO (2024), 'Early Competition Plan Cost Benefit Assessment Methodology', February, <https://www.nationalgrideso.com/document/301781/download> (accessed 9 April 2024).

²⁷ Oxera (2022), 'Assessing the Benefits of Competition in Onshore Transmission', 22 July.

²⁸ National Grid ESO (2024), 'Early Competition Plan Cost Benefit Assessment: Responses to consultation & summary of updates to methodology', February, www.nationalgrideso.com/document/301776/download (accessed 4 April 2024).

Four of the supporting studies are recorded as not identifying any benefits of competitive delivery—National Audit Office (NAO, 2009),²⁹ Blanc-Brude, Goldsmith and Valila (BBGV, 2009),³⁰ Royal Institute of Chartered Surveyors (RICS, 2011),³¹ and NAO (2018).³²

Given that four of the nine studies identified do not find any benefit associated with competitive tendering models, this places a relatively high burden on the remaining five to support the ESO's one-sided range of assumed savings, starting from at least 5%. These studies are as follows.

- A 2007 study commissioned by Infrastructure Partnerships Australia (IPA) comparing PPP delivery to 'Traditional' public sector delivery in three Australian states. This paper finds that PPP projects typically³³ overrun by between 11.4% and 30.8% less than projects delivered through a 'Traditional' model.³⁴
- A blog post by the World Bank on the cost overruns typically observed in transport infrastructure PPP projects, relative to public procurement. The blog post is based on evidence from Blanc-Brude and Makovsek (BBM, 2013), which finds that construction overruns are on average 23.3%³⁵ larger for public procurement projects.³⁶
- New South Wales (NSW) Treasury report on Value for Money in PPP procurement, based on the IPA paper summarised above and using the same range (11.4% to 30.8%).³⁷
- Alberta Electric System Operator (AESO) operated a competitive process to award the contract for the Fort McMurray West 500-KV Transmission Project. The Alberta

²⁹ National Audit Office (2009), 'Performance of PFI Construction', October, https://webarchive.nationalarchives.gov.uk/ukgwa/20170207052351/https://www.nao.org.uk/wp-content/uploads/2009/10/2009_performance_pfi_construction.pdf (accessed 12 April 2024).

³⁰ Blanc-Brude, F., Goldsmith, H. and Valila, T. (2009), 'A Comparison of Construction Contract Prices for Traditionally Procured Roads and Public-Private Partnerships', *Review of Industrial Organization*, **35**, pp. 19–40.

³¹ RICS (2011), 'The future of Private Finance Initiative and Public Private Partnership,' https://www.isurv.com/downloads/download/1808/the_future_of_private_finance_initiative_and_public_private_partnership_rics (accessed 12 April 2024).

³² National Audit Office (2018), 'PFI and PF2', www.nao.org.uk/wp-content/uploads/2018/01/PFI-and-PF2.pdf (accessed 12 April 2024).

³³ Based on a sample of 21 PPP projects and 34 publicly procured projects.

³⁴ Infrastructure Partnerships Australia (2007), 'Performance of PPPs and Traditional Procurement in Australia', https://infrastructure.org.au/wp-content/uploads/2016/12/IPA_PPP_FINAL.pdf (accessed 11 April 2024).

³⁵ 3.3% for PPP relative to 26.7% for public procurement.

³⁶ Blanc-Brude, F. and Makovsek, D. (2013), 'Construction Risk in Infrastructure Project Finance', February, EDHEC Business School, https://chaire-eppp.org/files_chaire/blanc-brude-makovsek.pdf (accessed 11 April 2024).

³⁷ The Allen Consulting Group (2007), 'Performance of PPPs and Traditional Procurement in Australia,' November, www.aph.gov.au/~media/wopapub/senate/committee/economics_ctte/completed_inquiries/2008_10/coag_08/submissions/sub01a_pdf.ashx (accessed 12 April 2024).

PowerLine Limited Partnership won³⁸ with a bid 11%³⁹ lower than the AESO's planning construction cost estimate.⁴⁰

- Ofgem's 2016 Impact Assessment (Ofgem, 2016) on extending competition in electricity transmission. Ofgem identifies potential savings from early competition of between 20% and 60%, based on evidence from a number of case studies from North American electricity transmission projects.⁴¹

Three of the five sources are based on analysis that compares cost overruns of a traditional public procurement process relative to PPP (BBM 2013, IPA and NSW).⁴² However, we identify several shortcomings with these studies that make them a poor basis for supporting the ESO's range.

First, of the three studies, two are based entirely on projects outside the energy sector—primarily transport and social infrastructure. The other study considered data from 75 projects, of which only 17 are based on energy projects and these are not necessarily comparable to energy transmission. Moreover, the three studies are based on delivery in different jurisdictions.⁴³

Second, the three studies are based on the difference between PPPs and public procurement processes. By using the cost differences identified from these ranges to support its sensitivity range, the ESO is implicitly assuming that public procurement is a good proxy for delivery under a RII model. However, in practice, RII delivery is based on strong regulatory incentives applied to private operators commercially incentivised to secure efficiencies in project delivery.

The NAO commented on the use of PFI evidence as a proxy for a comparison between a competitive process and a RII regime as follows:

The Department's cost benefit analysis prior to launching the [OFTO] regime was inadequate... Using department business case projections

³⁸ Against five shortlisted bidders.

³⁹ \$1.433bn, relative to \$1.6bn.

⁴⁰ AESO, Fort McMurray West 400 kV Transmission Project, www.aeso.ca/grid/transmission-projects/competitive-process/fort-mcmurray-west-500-kv-transmission-project/ (accessed 11 April 2024).

⁴¹ Ofgem (2016), 'Extending competition in electricity transmission: impact assessment', 27 May, www.ofgem.gov.uk/sites/default/files/docs/2016/05/extending_competition_in_electricity_transmission_updated_impact_assessment_0.pdf (accessed 12 April 2024).

⁴² In practice, the IPA and NSW papers utilise the same evidence base.

⁴³ Two of the studies are based solely on Australian evidence, while the third draws from a range of jurisdictions that the authors group into the following categories: Africa, Asia & Australia, Europe, Middle East, North America and South America.

from 15 early PFI projects referred to in reports by the National Audit Office (NAO) ... In our opinion the Department's final estimate of financial benefits was inadequate for two reasons:

- The Authority's offshore licensing regime replaced private sector procurement of transmission assets, rather than replacing conventional public procurement. **In our view this is not a good proxy for a mixture of regulation and competition replacing a commercial market.**
- Our previous reports have cast doubt on the robustness of PFI savings estimates....⁴⁴ [emphasis added]

Third, none of the three studies make any adjustment for the finding in BBGV (2009) that lower cost overruns from PPP processes are entirely offset by PPP bids coming in at a higher level—i.e. that the private sector is better than public procurement processes at pricing construction risk, rather than delivering lower cost overall.⁴⁵ Therefore, the identified efficiency gains could be driven by neglecting the initial bid premium in PPP projects and misrepresent the differences in total costs, positively biasing the benefits from PPP delivery. BBGV (2009) found that the ex ante premium paid for PPP delivery was 23%. If this were to be offset against the three studies this would imply an adjusted efficiency range for PPP delivery of between -12.6% and 6.8%.

On the basis of these three shortcomings, it seems more robust to either remove these three studies from the evidence base, or use an adjusted symmetrical range that accounts for the empirical evidence from BBGV (2009).

This leaves two of the nine studies to support the ESO's one-sided range of assumed savings, starting from at least 5%. Both AESO and Ofgem (2016) are primarily based on North American studies that compare the estimates of system operators to the outcome from a commercial competitive bid. As we set out in our previous report, the evidence base from these reports uses the local system operator's initial estimate of the construction cost of the scheme as a proxy for the outcome delivered under a RII model.⁴⁶ This does not account for the offsetting

⁴⁴ NAO (2012), 'Part Two Offshore electricity transmission: a new model for delivering infrastructure', paras 2.15 to 2.16, <https://www.nao.org.uk/wp-content/uploads/2012/06/121322.pdf> (accessed 11 April 2024).

⁴⁵ BBGV (2009) provide empirical evidence that ex post cost overruns of public procurement projects are offset by more expensive ex ante bids in a PPP scheme. As The ESO sets out, 'The difference in ex ante price between PPP and traditional procurement is of a similar magnitude as the cost overruns that are typically observed in traditional public procurement in the European road sector.'

⁴⁶ Oxaera (2022), 'Assessing the Benefits of Competition in Onshore Transmission', 22 July, section 3.

benefits of RIIO relative to a system operator estimate, as we summarised in the context of the Strategic Wider Works mechanism in our previous report.⁴⁷

Overall, based on the nine studies included in the ESO's literature review, it is not clear that the CAPEX sensitivity range proposed of 5% to 20% (central estimate 10%) adequately reflects the evidence. Four studies identify limited efficiency savings, three constitute either no evidence or evidence supporting a two-sided range. Two of the nine studies identify a positive range, but based on an imperfect comparison of North American system operator estimates to RIIO delivery.

In relation to the four (or seven) studies that identify limited efficiency savings, the ESO does not demonstrate why the findings from these studies should not contribute to the final sensitivity range. The absence of evidence of an efficiency difference should not be conflated with evidence of the absence of an efficiency difference between traditional and competitive delivery models. Several of these studies provide evidence that the efficiency difference from competition could be zero or potentially negative. These factors should be reflected in the ESO's assessment to ensure that the sensitivity range it applies does not inadvertently overstate the benefits of competition through selection bias.



Box 4.1 Key areas for development to secure the accuracy of the ESO's CAPEX efficiency range

- The sensitivity range for the quantitative drivers of costs and benefit in the IA is underpinned, in some cases, by evidence that overstates the potential savings achievable under a CATO model, relative to a RIIO model.

4.2 Operating expenditure

The ESO proposes using a sensitivity range of **5% to 20% (central estimate 10%)** that it expects to be delivered under competition, relative to a RIIO counterfactual—the same sensitivity range as for the CAPEX

⁴⁷ Oxera (2022), 'Assessing the Benefits of Competition in Onshore Transmission', 22 July, section 5.1.

savings discussed in section 4.1. The ESO includes three studies to support its assessment of the OPEX efficiency savings from competition, with a benchmark range of between 0% and 27%.

Two of these studies provide evidence that suggests limited cost efficiency in terms of OPEX:

- National Grid commissioned Frontier Economics to undertake an independent CBA of competitive onshore transmission projects. The report provides evidence that Ofgem (2016) overstates the benefits from competition by conflating them with the benefits deriving from differences in the regulatory regime across CATO and RIIO. The report also criticises Ofgem's use of OFTOs as a comparable framework for CATOs, as OFTOs are entirely insulated from construction risks and involve the transfer of existing assets.
- NAO (2018) provides information on the rationale, costs and benefits of the PFI, the use and impact of PFI, and the introduction of PF2. The analysis is underpinned by survey data. The NAO finds no evidence of operational efficiency from PFI in over ten years, with more recent data indicating costs of services are higher under PFI contracts. Survey respondents identified similar or higher operational costs under PFI.

While these two sources presented by the ESO provide evidence of limited cost efficiency from competition, they also identify the potential for higher total OPEX under PFI. This would yield a negative efficiency gain from competition, which is not adequately captured by the zero lower bound assumed for the benchmarking range. This biases the assessment in favour of competition.

The one study that does identify positive efficiency savings is a report commissioned by Ofgem from CEPA. The report assesses any benefits that might have been achieved from the introduction of the OFTO regulatory framework in TR2 and TR3 projects. OPEX efficiency savings are estimated compared to a series of counterfactuals. As set out by the ESO, the merchant counterfactual does not apply to early competition, based on which we can discount the efficiency range of 22–31%. The remaining efficiency range of between 19% and 23% derives from a comparison by CEPA between some unsuccessful bids made by some incumbent TOs for TR1 to TR3 against the winning bid. As we

highlighted in our previous report,⁴⁸ in making this comparison CEPA notes as a caveat that:

individual operators may have made particular operational and maintenance decisions as part of decisions on the more general commercial structure of their bids⁴⁹

Moreover, the ESO's analysis disregards the scope for RIIO to incentivise efficiency savings that may be unlocked by productivity improvements over the 40-year project. As we outlined in our previous report, the only way for a CATO bidder to reflect these in its bid would be to forecast such productivity gains 40 years ahead when making its bid. Additionally, the savings range does not reflect potential advantages that incumbent TOs would have in operating assets, for example through economies of scale.⁵⁰

We note that the ESO acknowledges this point, and proposes to develop this evidence further:

The efficiency challenge applied under the RIIO framework is put forward as an instance where benefit is passed on to customers and in turn should be netted from the efficiency gain under competition. We will engage with Ofgem for input on what assumptions should be included in the quantitative assessment regarding future cost efficiency challenge for the counterfactual case when future regulatory deals are agreed with incumbent TOs⁵¹

Overall, based on the three studies included in the ESO's literature review, it is not clear that the OPEX sensitivity range proposed of 5% to 20% (central estimate 10%) adequately reflects the evidence. Two studies did not identify any efficiencies, while one study does but is not based on a like-for-like comparison of a CATO and RIIO delivery models.

⁴⁸ Oxera (2022), 'Assessing the Benefits of Competition in Onshore Transmission', 22 July, section 2.3.

⁴⁹ CEPA (2016), 'Evaluation of OFTO Tender Round 2 and 3 Benefits', 16 March, p. 28.

⁵⁰ Oxera (2022), 'Assessing the Benefits of Competition in Onshore Transmission', 22 July, section 5.3.

⁵¹ National Grid ESO (2024), 'Early Competition Plan Cost Benefit Assessment: Responses to consultation & summary of updates to methodology', February, p. 11.



Box 4.2 Key areas for development to secure the accuracy of the ESO's OPEX efficiency range

- The sensitivity range for the quantitative drivers of costs and benefits in the IA is underpinned, in some cases, by evidence that overstates the potential savings achievable under a CATO model, relative to a RIIO model.
-

4.3 Cost of capital parameters

There are three parameters that the ESO estimates to determine the cost of capital under a CATO model:

- cost of equity—which it proposes to consider between 8% and 12% (midpoint 10%), with an additional 'first of a kind' (FOAK) uplift of 25bps for initial procurement rounds;
- cost of debt—which it proposes as an uplift to the forward swap base rate of 210bps to 230bps (central estimate 200bps) for construction and 125bps to 145bps (midpoint 135bps) for operations;
- gearing—which it proposes to set between 80% and 90% (midpoint 85%).

The ESO's incorporation of a novelty premium to the cost of equity for the initial tender rounds, in response to feedback and evidence from TOs, is useful not only in reflecting the DECC evidence cited but also in addressing the findings from the OFTO tender round process.⁵²

However, in identifying its core range for the cost of equity (before a novelty premium), the cost of debt and the gearing range, the ESO does not demonstrate that it is adequately accounting for the interaction between these parameters. In particular, the ESO uses three entirely different sets of studies to support its sensitivity range for these parameters, as follows.

⁵² Oxera (2022), 'Assessing the Benefits of Competition in Onshore Transmission', 22 July.

- The cost of equity sensitivity range is based on a number of UK PFI schemes (schools, hospitals, housing and transport) and waste-to-energy over the past 5–6 years.
- The cost of debt sensitivity range during the construction phase is based on margins on construction debt costs for a range of UK tunnelling and interconnector projects. Margins from recent OFTO projects are used to determine a cost of debt sensitivity range during the operations phase.
- A number of PPP and PFI projects are used to determine a range for gearing. However, the ESO increases the low end of the range from 57% to 80%, to reflect its expectation that CATO revenue build-up and risk allocation will be more similar to the schemes in its sample that have higher gearing.

We note two key concerns with the use of these ranges without further evidence or analysis developed by the ESO.

First, it is unclear how the ESO has differentiated between cost of capital savings (relative to RIIO) that are driven by a different risk allocation, as opposed to cost of capital savings that are a direct result of the competitive process. As Ofgem/CEPA noted in the context of savings as a result of the OFTO process:

To an extent, however, the benefits from OFTO competition versus the benefits of the OFTO regulatory approach (which helped create a risk allocation between investors and customers that is obviously attractive to investors) *cannot be separated*. The benefits of competition are a function of the market offering developed by Ofgem, *whilst the value for money of the OFTO market offering is itself a function of attractive features of the regime to investors* having had the opportunity to be tested via competition.⁵³ [emphasis added]

Ofgem is able to choose how it allocates risk within the RIIO price control to protect the interests of consumers. It is able to propose different risk allocations for different types of projects if it judges that this is appropriate—an option it has recently exercised through the development of the Accelerating Strategic Transmission Infrastructure process—therefore, any hypothesised benefits from competition arising

⁵³ Ofgem/CEPA (2016), 'Evaluation of OFTO Tender Round 2 and 3 Benefits', p. 45, www.ofgem.gov.uk/sites/default/files/docs/2016/03/ofgem_tr2_tr3_evaluation_final_report.pdf (accessed 4 April 2024).

from a lower cost of capital should be net of differences in risk allocation.

Second, it is unclear how the ESO has provided assurance that these different sources of evidence collectively produce a plausible cost of capital figure. The ESO's analysis does not show how it has accounted for interactions, for example:

- between all three parameters and the risk allocation of CATO relative to empirical schemes;
- between the assumed cost of debt based on one set of PFI benchmarks, and gearing levels based on another set of tunnelling and interconnector benchmarks;
- between the assumed cost of equity based on a different set of PFI benchmarks, and gearing levels based on another set of tunnelling and interconnector benchmarks;
- between the assumed efficiency savings and the risk exposure of bidders when providing a fixed price bid (with a 40% overspend cap).



Box 4.3 Key areas for development to secure the accuracy of the ESO's cost of capital parameters

- The impact of interaction effects between different assumptions underpinning the IA, particularly in terms of the commercial risk allocation, should be explored further and accounted for in the ESO's IA.
 - The internal consistency of the cost and benefit sensitivity ranges assumed by the ESO should be explored further and reflected in the ESO's IA.
-

4.4 Bidding and constraint costs

The ESO appears to consider a range of bidding costs to inform the range it assumes within its CBA approach. The ESO and Ofgem will also be able to influence the magnitude of any bidding costs incurred through the design of the competitive tendering process.

On constraint costs, as the system operator, the ESO is well positioned to estimate the constraint costs associated with potential project delay. It will apply appropriate costs where the additional time needed to run a competition causes a delay in the commissioning of the project.

However, it expects that the projects would start in the same year under both CATO and traditional delivery. As the ESO refines its process, this assumption may need to be refined.



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A large, three-dimensional "oxera" logo is mounted on a glass wall. The letters are white and have a modern, rounded font. The background shows a blurred view of green foliage and a building structure.