Consultation

Initial Policy Consultation on Proposed Opex Escalator (OE) Review Mechanism	
Publication date:	1 August 2024
Response deadline:	26 September 2024
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We are consulting on the policy in respect of the proposed OE Review Mechanism, which we intend to introduce in order to allow us to increase electricity transmission licensees' RIIO-ET2 Closely Associated Indirect (CAI) allowances in certain limited circumstances. We particularly welcome responses from those with an interest in electricity transmission and distribution networks. We also welcome responses from other stakeholders and the public.

This document sets out the scope and purpose of the consultation, the consultation questions, and explains how you can get involved. Once the consultation is closed, we will consider all of the responses we receive. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at ofgem.gov.uk/consultations. If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

Defined terms and definitions used in this document are listed in Appendix 1.

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

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

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

Contents

1. Introduction

What are we consulting on?

1.1 We are consulting on our draft proposals for the design, calibration and operation of an OE Review Mechanism. This consultation is the first step towards introducing the OE Review Mechanism and covers the general principles, the qualifying criteria, the proposed review mechanism, the evidence and reporting requirements.

Context and related publications

1.2 We first proposed to introduce an OE Review Mechanism in our decision to modify NGET's licence in order to give effect to our previously published decision on its 2022 MSIP Applications[1]. The licence modification decision was published on 6 October 2023 and is referred to throughout this document as the 'October 2023 OE Decision'. We explain in the October 2023 OE Decision the full background to the questions that lead to our initial proposal to introduce an OE Review Mechanism. We repeat some of the explanation in this document, where it is helpful and relevant to this consultation, but we recommend that anyone requiring further explanation to read the October 2023 OE Decision.

1.3 As part of this consultation we have published the following:

a. Initial Policy Consultation on Proposed Opex Escalator (OE) Review Mechanism (pdf): this document

b. Opex Escalator Closeout Threshold Simulation Model (Excel): model to help test appropriateness of proposed thresholds

c. RIIO-ET1 Volume Driver Additional Data Template (Excel): template for ETOs to provide additional data needed for modelling purposes.

1.4 This document is intended to be read alongside:

- The decision document related to the application of OE in NGET 2022 MSIP projects published in October 2023 ('October 2023 OE Decision')[2]

[1] Decision on NGET's 2022 MSIP Re-opener Applications, 19 April 2023: https://www.ofgem.gov.uk/decision/decision-nget-2022-msip-re-opener-applications

[2] Decision to modify the special conditions of the electricity transmission licence held by National Grid Electricity Transmission Plc, 6 October 2023: https://www.ofgem.gov.uk/decision/decision-modify-special-conditions-electricity-transmission-licence-held-national-grid-electricity-transmission-plc

- Special Conditions of the Licence[3]

Consultation stages

1.5 This consultation will open on 1 August 2024 and will close on 26 September 2024. We will publish the responses we receive a few weeks after the consultation closes.

Figure 1: Consultation stages

Stage 1	Stage 2	Stage 3	Next Steps
Consultation open	Consultation closes (awaiting decision). Deadline for responses	Responses published	To be confirmed: dependent on the responses we receive
01/08/2024	26/09/2024	October 2024	See Chapter 10

How to respond

1.6 We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.

1.7 We've asked for your responses and feedback on each of the questions throughout the document. **Please provide as much necessary detail** as you can in your answers, including clear explanation of your views, reasons for them, and any supporting evidence that you might have. This will help ensure that your views are properly understood, appropriately considered, and reflected in our final decisions.

1.8 We also suggest that you **read the entire document** before attempting to answer the consultation questions as some explanation relevant to the questions in a given chapter might be contained in other chapters or appendices.

1.9 A full list of the consultation questions can also be found in Appendix 3.

1.10 We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

[3] https://www.ofgem.gov.uk/energy-policy-and-regulation/industry-licensing/licences-and-licence-conditions

Your response, data and confidentiality

1.11 You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, under the Environmental Information Regulations 2004, under statutory directions, court orders, government regulations. We may also disclose the relevant information ifyou give us explicit permission to disclose it. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

1.12 If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.

1.13 If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Authority will be the data controller for the purposes of the UK GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 7.

1.14 If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

1.15 We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:

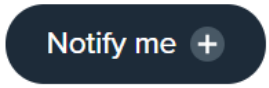
- Do you have any comments about the overall process of this consultation?
- Do you have any comments about its tone and content?
- Was it easy to read and understand or could it have been better written?

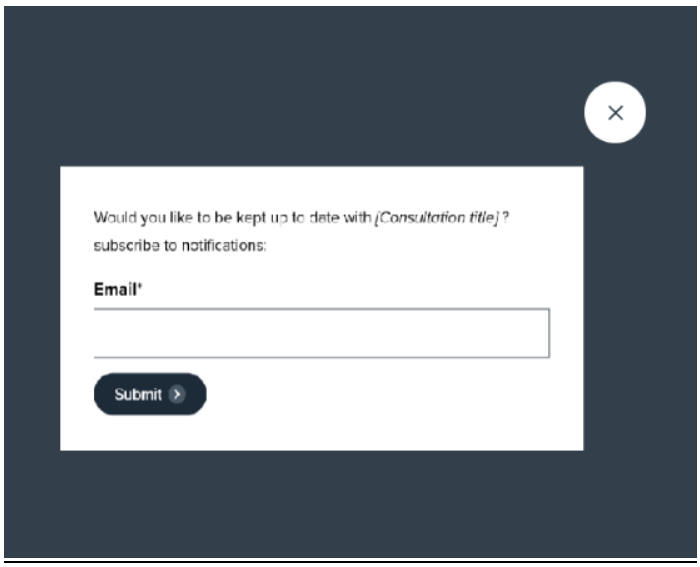
- Were its conclusions balanced?
- Did it make reasoned recommendations for improvement?
- Any further comments?

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

How to track the progress of the consultation

You can track the progress of a consultation from 'upcoming' to 'decision' status using the 'notify me' function on a consultation page when published on our website. Ofgem.gov.uk/consultations





Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status. Our consultation stages are:

Upcoming > **Open** > **Closed** (awaiting decision) > **Closed** (with decision)

2. Overview of the RIIO-ET2 price control and the Opex Escalator

Network price controls

2.1 Network companies are natural monopolies. Effective regulation of privatised for-profit monopolies is essential to ensure they cannot unfairly exercise their monopoly power to the detriment of their customers. This is particularly important in the case of essential utilities, such as energy, where consumers have no choice on whether or not to pay what they are charged. It is therefore crucial that an effective regulator protects energy consumers by controlling how much network companies can charge their customers. Ofgem[4] does this through periodic price controls that are designed to ensure network companies are properly incentivised to deliver the best possible outcomes for existing and future energy consumers. This includes ensuring that consumers only pay for investments that are needed and do not overpay for those investments.

2.2 The current price control model is known as RIIO (Revenue = Incentives + Innovation + Outputs). RIIO-ET2 is the second electricity price control under the RIIO model and runs from 1 April 2021 until 31 March 2026.

2.3 When setting price controls we consider the overall deal for consumers. Our primary consideration is to ensure that on the whole consumers pay a fair price for the work that network companies do on their behalf.

Network company funding: Baseline Allowances and Uncertainty Mechanisms

2.4 At the time that the RIIO-ET2 price control was set, Electricity Transmission Owners (ETOs) were given Baseline Allowances to enable them to undertake their 'business as usual' operational activities and other investments for which there was sufficient justification and certainty. In some cases, the **Baseline Allowances** have associated **Price Control Deliverables (PCDs)**. PCDs are specific projects or outputs that ETOs are expected to deliver in exchange for the allowances they receive from consumers. If an ETO does not deliver a PCD then the associated allowances will be clawed back and returned to consumers.

[4] The terms 'the Authority', 'Ofgem', 'we' and 'us' are used interchangeably in this document. The Authority is the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

2.5 RIIO-ET2 also includes a range of Uncertainty Mechanisms (UMs) that allow us to assess applications for further funding during RIIO-ET2 as the need, cost, or timing of proposed projects becomes clearer. This is intended to ensure that consumers pay network companies a fair price for the investments, and that consumers fund projects only when there is clear evidence of benefit, and we have clarity on likely costs and cost efficiency. These mechanisms also ensure that the RIIO-ET2 price control has flexibility to adapt as the pathways to Net Zero become clearer.

2.6 Where possible, we have set automatic UMs, known as **Volume Driver** mechanisms, such as the Generation and Demand Connection Volume Drivers, which provide ETOs with immediate funding when they are required to undertake new customer connection works. Volume Driver mechanisms are automatic in that they do not require Ofgem to assess the individual projects. The network company receives additional allowances at pre-defined rates for the volume of outputs they deliver.

- Automaticity is the critical feature. It enables Ofgem to fund work not in companies' baseline without being overwhelmed by the need to individually assess a large number of projects on a bespoke basis, and so either delay needed investment, or risk consumers overpaying or paying for unnecessary projects. Automatic mechanisms also reduce the regulatory burden on network companies in terms of collating, assuring and presenting information on the need, timing, costs and volume for a series of individual projects, that would be needed for bespoke assessments.
- A consequence of ex ante set rates for the delivery across a portfolio of work (e.g. generation connections) is an inherent lack of cost accuracy on an individual project basis. Rather, efficient funding is ensured instead, through consideration of funding impacts in the price control settlement each company has secured in the round. We will return to this point further, because it is crucial to how the risk of underfunding should be considered.
- Volume drivers and re-openers are well understood, and are a well-developed and essential feature of the price control.

2.7 In other areas, where the degree of uncertainty is too great to allow for an automatic mechanism, we set "**re-openers**" which will allow us to assess ETO proposals robustly, once sufficiently certain information is available.

2.8 The re-openers provide ETOs with opportunities to request additional funding for a range of activities and infrastructure build and replacement work (from small IT projects to large projects to reinforce the transmission network). Many of the re-opener applications are for work that is critical to achieving Net Zero targets. The re-opener mechanisms were developed to ensure that ETOs are able to undertake necessary investments across the onshore transmission network areas of the three ETOs even when funding has not been provided in RIIO Baseline Allowances.

The Opex Escalator (OE)

2.9 The OE, set out in Special Condition (SpC) 3.36 of the ET licences, is an example of a Volume Driver mechanism, and is used to set Closely Associated Indirect (CAI) allowances in cases where Ofgem has awarded additional Direct Activity Allowances through a re-opener mechanism[5]. The CAI allowances on a given project are calculated according to Equation 1 below:

Equation 1

$$[Project\ CAI\ Activity\ Allowance] = [Project\ Direct\ Activity\ Allowance]\ x\ [OE\ (\%)]$$

where 'Project Direct Activity Allowance' are the allowances set through the re-opener mechanism, and OE(%) is the percent uplift for CAI Activities.

What we need to consider when setting price controls

2.10 RIIO, in common with most monopoly utility price controls, is primarily an 'ex ante'[6] regime.

2.11 All decisions we make in setting and implementing a price control require us to exercise some element of regulatory judgement. In all cases our judgments are based on the best information that we have at the time. This will include forecast information and scenario projections produced directly by the ETOs, historical trends, technical and engineering justification, and our assessment of likely future changes in the economic, technological, political, and environmental landscapes, as well as the interactions with other elements of the price control.

[5] The re-opener mechanisms to which OE is applicable are listed in Appendix 1

[6] Ex ante means ahead of the work being carried out. RIIO is primarily an ex ante mechanism, meaning that allowances are awarded ahead of the work being delivered. Allowances are informed by company forecasts and reflecting Ofgem's expectation of the required scope of work and efficient cost of delivering the work. This is opposed to 'ex post' mechanisms where allowances are awarded after the work has been delivered.

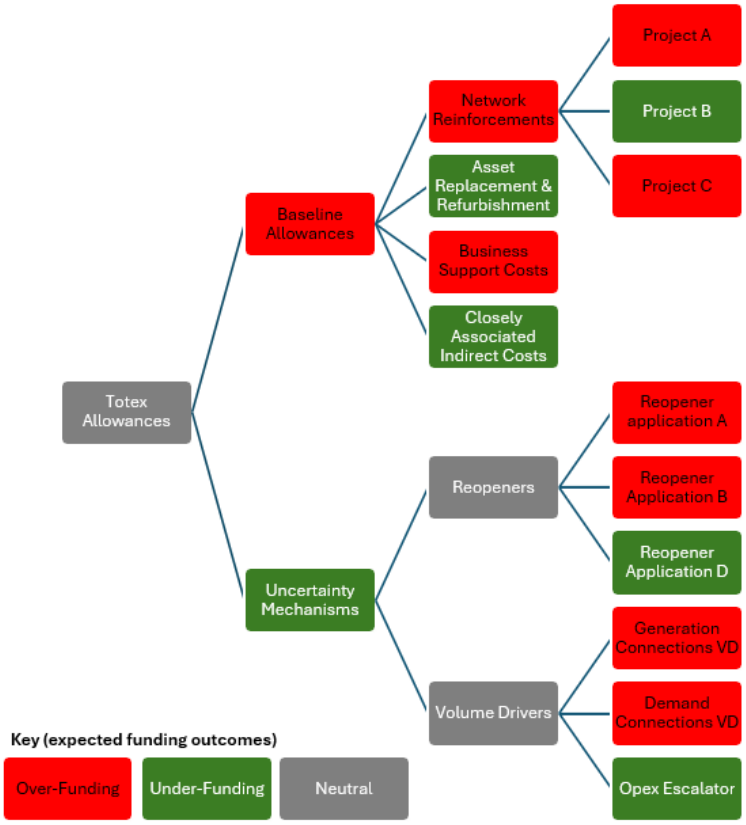
2.12 If ensuring lower short term prices for consumers were our only consideration, then where regulatory judgements need to be made in setting price controls, all decisions and assumptions we make would lean towards lower allowances. However, this would tip the overall balance of the price control, from a network company perspective, towards a likely under-funding outcome, and would not be in the long term interests of consumers. Because this is not the only consideration[7], and to ensure that the price controls benefit consumers in the short, medium, and long-term, we need to weigh up and trade-off different decisions in the knowledge that some elements are more likely to lead to an over-funding outcome, and others are more likely to lead to under-funding. Our aim, when considering these trade-offs, is to ensure that overall (at a total expenditure, or 'Totex' allowance level) a neutral outcome is achieved, i.e. leaning neither towards a likelihood of over-funding or to under-funding.

2.13 Price controls need to be set often years in advance of required work being carried out, usually with large degrees of uncertainty over what work is needed and the efficient cost of delivering workloads. For this reason it is virtually impossible to accurately predict what the efficient cost needed to fund an efficient network company over a price control period will be. When setting a price control our aim is that, at the end of the price control, when all baseline and uncertainty mechanism allowances are added up, that the Totex figure is efficient.

2.14 **Figure 1** below illustrates the trade-offs that we need to make when designing price control mechanisms and setting allowances. Every decision that we make is underpinned by large number of assumptions and in most cases means erring, to a greater or lesser extent, on either the side of likely under-funding or likely over-funding. We try to quantify the impact of the assumptions that we make, and, where possible, to make judgements based on these quantifications. However, all decisions require at least some element of judgement based on qualitative assessments and logic. We accept and account for likelihood that if you cherry-pick individual elements and individual assumptions then, in isolation, they may appear unfair to either network companies or to consumers. This is why we need to weigh up and trade-off expected outcomes across the price control as a whole. Not having the ability to make these trade-offs would make it impossible to effectively regulate network companies through price controls.

[7] Our principal objective to protect the interests of existing and future consumers and wider statutory duties, as detailed in the section 4AA of the Gas Act 1986 and section 3A of the Electricity Act 1989.

Figure 1: Illustration of trade-offs in price control decisions[8]



2.15 Although we set price controls in the expectation that the overall totex outcome will be as illustrated in **Figure 1**, there is no guarantee that the final outcome will match the expectation that we had at the time of price control setting. In fact, because it is impossible to predict with absolute accuracy what will happen over the five years of a price control period, it is almost certain that, rather than a neutral outcome, the final outcome will be some degree of over-funding or under-funding. There are other mechanisms within the price control, such as the Totex Incentive Mechanism, that help us to mitigate this outcome.

[8] Please note that this is illustrative only. The indicated over-funding and under-funding do not necessarily represent the actual trade-offs that were made when setting RIIO-ET2. It also does not fully illustrate all the price control elements or granularity of decisions.

3. Why are we now proposing to introduce an OE Review Mechanism?

The purpose of the Opex Escalator

3.1 The OE was introduced as part of RIIO-ET2. As explained in the RIIO-ET2 FDs,[9] its purpose is to provide an automatic means for adjusting ETOs' Closely Associated Indirect ('CAI') Activity Allowances when their Direct Activity Allowances[10] are adjusted through specified Re-opener mechanisms[11] and other UMs as set out in the ETOs' SpCs. This avoids the need for an efficiency assessment of CAI Activity Costs[12] on individual projects.

Implementation of the Opex Escalator

3.2 The OE is implemented every time we award an ETO additional allowances under an applicable RIIO-ET2 mechanism.

3.3 The OE is an automatic Volume Driver[13] mechanism that provides efficient CAI Activity Allowances across a licensee's full RIIO-ET2 capital programme.[14] For Re-opener mechanisms (such as MSIP), and Volume Driver mechanisms (such as the Generation Connections Volume Driver) the OE is applied to individual project Direct Activity Allowances. In the case of Volume Driver mechanisms the Direct Activity Allowances are also set automatically. However, for re-opener

[9] RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator | Ofgem (p.76 of RIIO-ET2 FDs – ET Annex).

[10] All capitalised terms used below unless otherwise defined have the meanings given to them in the ETO licences. See Appendix 1: Glossary for relevant definitions.

[11] See Appendix 2 for the list of relevant Re-opener mechanisms.

[12] There are two main opex components: • Network operating costs, which are costs incurred in the day-to-day running of the network, for example, rectifying faults, repairs and maintenance activities • Indirect opex, which encompasses business support costs (BSC), i.e. costs relating to functions such as corporate governance, and closely associated indirect (CAI) costs, i.e. back office functions closely involved in the construction and operation of network assets such as project management and network design.

[13] A Volume Driver is an Uncertainty Mechanism allowing revenue to vary as a function of a volume measure. An example is a connections Volume Driver that provides an ETO with allowances on the basis of the number of new connections and at a fixed unit cost per connection.

[14] The OE also provides for an uplift for Network Operating Costs (NOC); however, no issues with the NOC uplift have been identified in these MSIP projects and are therefore the uplift for NOC is not discussed further. For further detail on NOCs, see paragraph 3.39 of the FDs – ET Annex: https://www.ofgem.gov.uk/sites/default/files/docs/2021/02/final_determinations_et_annex_revised.pdf

mechanisms the Direct Activity Allowances are set on a project-by-project basis by Ofgem following a detailed assessment.

3.4 To determine the appropriate individual project allowances, Ofgem directly assesses the Direct Activity costs submitted by the ETO (under the relevant Special Condition of the ET2 Licence) and, using appropriate cost assessment techniques, sets efficient Direct Activity Allowances. The OE is then applied to the Direct Activity Allowances to calculate the associated CAI Activity Allowances, as per **Equation 2** below. This avoids the need for Ofgem to directly assess and determine efficient CAI Activity Allowances on a project-by-project basis, and ensures that CAI Activity Allowances set through the Re-opener mechanism are consistent with CAI Activity Baseline Allowances.

Equation 2

$$[Project\ Indirect\ Activity\ Allowance] = [Project\ Direct\ Activity\ Allowance]\ x\ [OE\ (\%)]$$

The total allowance for a given project is the sum of the Project Direct Activity Allowance and the Project CAI Activity Allowance.

3.5 Each ETO has a different OE value, which was set at RIIO-ET2 FDs. The OE is fixed for the duration of RIIO-ET2 (April 2021 to 2026) and applies across an ETO's entire portfolio of RIIO-ET2 operational investments. The OE values for the three ETOs are:

- NGET: 16.89%
- SHET: 10.81%
- SPT: 13.42%

ETOs' views on how the Opex Escalator is implemented

3.6 When we calibrated the OE we were aware the calibration data we used treated some Contractor Indirects (CIs) as Direct Costs. ETOs argue that the treatment of CIs in the OE calibration (Embedded CIs) will lead to systematic under-funding versus efficient levels in RIIO-ET2 of approximately £300m[15].

3.7 As explained in the October 2023 OE Decision[16], we disagree with the ETOs' assessment. In our view, if the underlying assumptions (other than the treatment

[15] ETO Joint Letter to Ofgem, 18 May 2023: https://www.ofgem.gov.uk/sites/default/files/2023-06/SSENT-SPEN-NGET_Opex%20Escalator_Letter_Ofgem_May23_0.pdf
[16] Decision to modify the special conditions of the electricity transmission licence held by National Grid Electricity Transmission Plc | Ofgem

of Embedded CIs) necessary for all Volume Driver mechanisms are disregarded or cancel each other out, then there is theoretical weight to the ETOs' arguments. However, at present no such evidence exists and the OE mechanism appears to be working as intended.

3.8 Please see Appendix 4 and our October 2023 OE Decision, paragraphs 2.27 to 2.60, for more detailed explanation of this issue.

The proposed Opex Escalator (OE) Review Mechanism

3.9 Our October 2023 OE Decision recognised that while sufficient evidence of systematic under-funding does not exist at present, the ETOs may be able to present sufficient ex post evidence at "closeout" once the price control has ended. We therefore proposed to introduce a closeout mechanism (OE Review Mechanism) following the draft key principles as set out in Appendix 5 of the October 2023 OE Decision. The proposed mechanism is intended to enable us to award ETOs additional RIIO-ET2 CAI allowances, in cases where an ETO has provided clear empirical evidence[17] that the treatment Embedded CIs has led to material and systematic under-funding.

3.10 The rationale and above concepts are explained more detail in the remainder of this document.

3.11 Although we have sought ETOs' views on our proposals, we have not yet sought the views of energy consumers and other stakeholders. This consultation provides an opportunity to all stakeholder to provide their views on our proposals and for those views to inform the final design of the mechanism.

3.12 We welcome views from all stakeholders on our proposed OE Review Mechanism.

[17] Empirical evidence is evidence that is acquired by observation.

4. The OE Review Mechanism

Why are we proposing to introduce an OE Review Mechanism?

Questions

Q1. Do you agree that it would be in the interest of consumers to introduce an OE Review Mechanism for the purposes explained?

Q2. Do you agree that ETOs should be awarded additional allowances only where there is clear empirical evidence of material and systemic under funding of CAI Activities versus efficient levels on the re-opener mechanisms covered by the OE?

Q3. Given your responses to Q1 and Q2 do you agree that there should be no clawback of allowances through this mechanism in cases where the empirical evidence suggest material and systematic over-funding of RIIO ET2 CAI Allowances?

Q4. Do you have views on the risks and risk mitigations associated with introducing the OE Review Mechanism? Are there any risks we have not yet identified that should be considered in our decision on whether or not to introduce the OE Review Mechanism, or that need to be further mitigated in its design?

4.1 As mentioned in paragraph 4.3 in our October 2023 OE Decision, we recognised that while sufficient evidence of systematic under-funding[18] does not exist at present, the ETOs may be able to present sufficient ex post evidence at closeout.

4.2 We are now proposing to introduce a new mechanism to be taken forward as an element requiring "closeout" once the price control has ended. The details of the proposed assessment process will be included in the forthcoming RIIO-ET2 closeout methodology document and, subject to consultation, will be implemented once the RIIO-ET2 price control has ended. If introduced, the mechanism will allow ETOs at RIIO-ET2 closeout to make an application for additional CAI Activity Allowances. To be considered eligible for additional CAI Activity Allowances each ETO will need to provide sufficient evidence to demonstrate that material and systematic under-funding has occurred.

Purpose of proposed OE Review Mechanism

4.3 The purpose of the OE is to ensure that ETOs are appropriately funded for their CAI Activities across the price control, including additional CAI Activities

[18] See Appendix 5 for explanation of what systematic means in this context and how we might determine whether or not systematic under-funding has occurred.

associated with delivering projects approved under re-opener mechanisms and Volume Driver mechanisms. Please see paragraphs 2.3 to 2.5 in our October 2023 OE Decision for further information.

4.4 As explained above, ETOs claim that there is a systematic issue that means that implementing the OE will lead to their CAI Activities being under-funded by approximately £300m over the duration of the RIIO-ET2 price control. We recognise that theoretical arguments exist as to why systematic under-funding may have occurred. However, because it is not possible to demonstrate before the relevant projects have closed (i.e. construction completed and project has been fully delivered) that under-funding has occurred, does not mean that it will not be possible to demonstrate it once RIIO-ET2 has ended and the relevant projects have closed.

4.5 We are therefore proposing to introduce the OE Review Mechanism for the following purposes:

- to give ETOs an opportunity to demonstrate, through the provision of robust empirical evidence, that OE implementation has led to material and systematic under-funding of RIIO-ET2 CAI Allowances, and
- to enable Ofgem to determine (based on the empirical evidence provided by ETOs) the value of any material and systematic under-funding, and to adjust ETOs' RIIO-ET2 CAI Allowances to mitigate the determined level of under-funding.

4.6 As with other Volume Driver mechanisms, the over-all outcome could be either over-funding or under-funding. However, as our view remains that the OE Mechanism is working as intended, and because ETOs have only presented theoretical arguments in favour of under-funding, we are therefore proposing that:

- there will be no clawback of allowances through this mechanism should the empirical evidence suggest material and systematic over-funding of RIIO-ET2 CAI Allowances has occurred,
- additional allowances will be awarded only where there is strong empirical evidence of material and systemic under-funding of CAI Activities versus efficient levels on the re-opener mechanisms covered by the OE,

4.7 We explain in Appendix 5 what we mean by systematic under-funding in this context. We recommend that stakeholders read Appendix 5 before providing answers to Consultation Questions Q1 to Q4 above.

Risks associated with introducing the OE Review Mechanism

4.8 Introducing the OE Review Mechanism is not without risk. We are designing the OE Review Mechanism to as much as possible mitigate the risks. In our view, the main risks are:

1. Risk of setting a precedent that encourages cherry picking: by introducing a mechanism to address a single factor (in this case the treatment of Embedded CIs) we are setting a precedent for licensees to cherry pick and challenge on factors that, if considered in isolation, may not work in their favour, but without full consideration of the decision in the context of the price control as a whole and the necessary underlying trade-offs.

   Proposed risk mitigation

   - We are proposing to mitigate this risk by placing a high burden of proof on ETOs to demonstrate material and systematic under-funding across their RIIO-ET2 project portfolio.

2. Risk of incentivising ETOs to over-spend: the proposed eligibility criteria assume that over-spend is equivalent to under-funding (see Chapter 6 below). There is a risk that ETOs will over-spend in order to be eligible for potential additional allowances under the OE Review Mechanism.

   Proposed risk mitigation

   - We are proposing to mitigate this risk by setting thresholds sufficiently high to not only indicate a likelihood of material and systematic under-funding, but also make it unlikely that an ETO would be able to breach the thresholds through deliberate inefficiencies. We will continue to monitor ETOs spend on projects through annual reporting. Given that we are introducing this mechanism in the fourth year of a five-year price control, there is reduced scope for ETOs to manipulate the mechanism. We consider that any attempts to do so in the last two year or RIIO-ET2 will be evident when compared to the first two years' annual returns. In the event that the annual monitoring process detects the possible evidence of behavioural or presentational shifts in the reporting of relevant project data, we will consider our options for further action in accordance with Standard Condition B15: Regulatory Instructions and Guidance ('the RIGs Licence Condition'), including the potential for enforcement action.

5. Scope of the proposed OE Review Mechanism

Questions

Q5. Do you agree, that for the purpose of defining the scope of the OE Review Mechanism, we should assume that the net impact of the treatment of Embedded CIs in allowance setting in all categories other than Category 4 (CAI Allowances set through re-opener mechanisms) is zero?

Q6. Do you agree that Volume Driver mechanisms to which the OE applies should be excluded from scope?

Q7. Given your responses to Q5 and Q6, and any other relevant considerations, do you agree with the proposed scope of the OE Review Mechanism?

5.1 We are proposing to introduce the OE Review Mechanism to mitigate any proven material and systematic under-funding caused by the way CIs were treated when the OE was calibrated. When we set the RIIO-ET2 price control we were consistent in how we treated CIs across all mechanisms and allowance categories, i.e. did not make any adjustments to account for our knowledge that some ETOs reported Direct Activity Costs contained some elements of CIs. Although it is not possible to reliably quantify the impacts, it is possible to infer whether the impact of this CI treatment was likely to be to increase or decrease allowances above the levels they would otherwise have been had perfect data been available.

5.2 **Table 1** below gives a summary of the likely impact of Embedded CIs in RIIO-ET2 allowance setting on the main allowance categories and mechanisms. It indicates, based on logical inference, whether the likely funding outcome for a given allowance category or mechanism would be **higher** or **lower** than the efficient allowance level for that allowance category or mechanism. Although the treatment of Embedded CIs is likely to impact a number of allowance categories, we are proposing to include only Category 4: CAI Allowances (set automatically through the OE) within the scope of the OE Review mechanism.

5.3 Limiting the scope to Category 4 effectively assumes that the net impact on Categories 1, 2, 6, and 7 is zero. Our assessment is that in reality the net impact on Categories 1, 2, 6, and 7 is likely to be over-funding and likely net off any under-funding in Category 4 (this is the outcome illustrated in **Figure 1** on page 13). However, in our view the assumption that the net impact on Categories 1, 2, 6, and 7 is zero is necessary as:

- including these categories within scope would amount to an effective re-opening of the price control, and
- it would be a disproportionate use of resources and would add huge amounts of complexity to assess and weigh up all the impacts of the treatment of Embedded CIs across the full price control.

5.4 In order to mitigate the negative impacts of this limitation, and to avoid the need for a full reopening of the price control, it is essential that we place a high burden of proof on ETOs to demonstrate material and systematic under-funding. Additionally, while the proposed scope of the mechanism is limited to Category 4, this does not preclude us from considering the interaction with other categories when determining whether it is appropriate to award additional allowances and/or the determining the level of additional allowances through the OE Review Mechanism.

Table 1 – Impact on RIIO-ET2 allowances due to ETOs historical reporting of Direct Activities with Embedded CIs[19]

Allowance category/ Mechanism	Likely impact of Embedded CIs	Within Scope
Baseline Allowances		
1. Direct Allowances*	Higher allowances	No
2. CAI Allowances*	Lower allowances	No
Allowances set in period through Re-opener Mechanisms		
3. Direct Allowances (set directly through re-opener mechanisms)	No impact	No
4. CAI Allowances (set automatically through the OE)	***Lower allowances***	***Yes***
5. CAI Allowances (not set directly, i.e. not through the OE)	No impact	No
Allowances set in period through other Volume Drivers		
6. Direct Allowances (set automatically through the volume driver mechanisms)	Higher allowances	No
7. CAI Allowances (set automatically through the OE)	Lower Allowances	No

5.5 Although the OE also applies to Volume Driver mechanisms, for the reasons explained above, we are proposing to exclude Volume Driver mechanisms from

[19] Please see Appendix 4 for further detail.

scope of the OE Review Mechanism and for the scope to be limited to following re-opener mechanisms (the "OE Closeout Re-openers"):

i. The Visual Impact Mitigation Re-opener and Price Control Deliverable and Enhancing Pre-existing Infrastructure Projects allowance (applicable to all three ETOs)
ii. Medium Sized Investment Projects Re-opener and Price Control Deliverable (applicable to all three ETOs)
iii. Fibre Wrap Replacement Re-opener (applicable to NGET only)
iv. Civil Related Works Re-opener (applicable to NGET only)
v. Tower Steelworks and Foundations Re-opener (applicable to NGET only)
vi. Tyne Crossing Project Re-opener (applicable to NGET only)
vii. Bengeworth Road GSP Project Price Control Deliverable (applicable to NGET only).
viii. Uncertain non-load related projects Re-opener (applicable to SPT only)
ix. Subsea Cable Re-opener (applicable to SHET only)

6. Eligibility Criteria

Questions

Q8. Do you agree that we should use eligibility criteria and that ETO should only be considered eligible for consideration under the OE Review mechanism where all the proposed eligibility criteria have been met?

Q9. In your view should any additional eligibility criteria be considered?

Q10. Do you agree with our explanation of what we mean by systematic under-funding in this context? [see Appendix 5]

Q11. Do you agree with the two methods (direct and indirect) for testing for systematic under-funding? Do you agree that the direct method is not possible in the case of the OE? [see Appendix 5]

Q12. Do you agree that it is appropriate to consider RIIO-ET1 Volume Driver mechanisms as examples of Volume Driver mechanisms that have worked as intended (i.e. the allowances set through them were within acceptable bounds)? [see Appendix 5]

Q13. Do you agree with the overall threshold value assessment approach? [see Appendix 6]

Q14. Do you agree with that the standard deviation and mean values that we have assumed to be appropriate for this purpose? If not then do you have evidence or proposals to allow us derive ones you would consider to be more appropriate? [see Appendix 6]

Q15. Do you have any views on the simulation modelling (in the accompanying Excel file) that we have used to help validate the threshold values? [see Appendix 6]

Q16. Do you agree that the three proposed eligibility criteria are appropriate? Please provide your views on each of the three proposed criteria, including the appropriateness of the proposed threshold values.

6.1 In order to determine appropriate levels of funding adjustment under the OE Review Mechanism we will be required to review and analyse significant amounts of data and information on the relevant projects. Such a review exercise will require significant resource commitments from both Ofgem and from the ETOs. This would be counter to the intended purpose of the OE mechanism, as it would tie up resources on work that is unlikely to be consequential and would take resources away from areas that are likely to be of more benefit to consumers. We therefore propose that we will only conduct a full review should ETOs provide

sufficiently strong evidence to suggest that material and systematic under-funding has taken place.

6.2 We are therefore proposing to set minimum eligibility criteria for the OE Review Mechanism, to allow us to assess whether there is a reasonable likelihood, given information asymmetry and statistical variation, of material and systematic under-funding. The eligibility criteria will allow us to assess, using mainly information and data that ETOs would have readily at hand and/or would submit to Ofgem as a matter of course through their annual reporting, whether it is likely that material systematic under-funding has taken place. As explained in paragraph 7.6 below, if any ETO does not meet the eligibility criteria we propose that the assessment process will stop there and the decision will be to set the value of the proposed allowance adjustment at zero.

6.3 In order for an ETO to be eligible to apply under this mechanism, it must demonstrate that there is material and systematic under-funding on relevant projects across the RIIO-ET2 period as a result of the treatment of Embedded CIs in the OE calibration. If material and systematic under-funding has taken place, we would expect to observe under-funding on a significant number of projects in RIIO-ET2. ETOs must therefore provide evidence of under-funding on a suitably large proportion of OE Closeout projects in order to be eligible to make an application for additional allowances under the OE Review Mechanism.

6.4 We are proposing three eligibility criteria:

- Criterion 1: Adequacy of allowances
- Criterion 2: Materiality of allowances
- Criterion 3: Systematic test

In order to be eligible, all three of the criteria must be met.

The first criterion is to help us decide, given the magnitude of CAI Allowances provided to ETOs and the extent of the ETOs CAI Activities in RIIO-ET2, whether ETOs have been sufficiently funded in totality for these activities. Criteria 2 and 3 are then applied to determine whether there is a reasonable likelihood that there has been material and systematic under-funding, as claimed by the ETOs.

6.5 ETOs have estimated that implementation of the OE will result in them being under-funded by £300m. If the ETOs are correct and there is systematic under-funding close to their estimated levels (i.e. total £300m), this would lead to all eligibility criteria being met comfortably.

Criterion 1: Adequacy of CAI allowances across the price control

An ETO's outturn total RIIO-ET2 CAI expenditure (both internal and external) across all RIIO-ET2 mechanisms must be greater than all CAI Allowances.

Rationale

6.6 When we set a price control, we set allowances for individual projects, activities, or categories of cost. RIIO, however, is a total expenditure (Totex) framework, where the ultimate consideration is ensuring that, at a total level, licensees are appropriately funded. Our aim therefore is to set totex allowances at levels that would fully fund an efficient operator to deliver the work and infrastructure that energy consumers need.

6.7 We explain in Chapter 5 that the treatment of Embedded CIs applied not only to the calibration of the OE, but also to the setting of Direct Activity Allowances. The impact of this is that Direct Activity Allowances were likely inflated to some extent compared to what they would otherwise have been had perfect data been available to us. We accepted these outcomes because when we consider allowances at totex level the effects are expected to offset each other in the round.

6.8 Given the above considerations, we do not think a prudent regulator could reasonably justify to consumers the awarding of additional allowances to ETOs for CAI Allowances in cases where their existing allowances have been more than sufficient to cover their incurred expenditure on those activities across the price control period. We are therefore proposing that any ETO for which the total incurred expenditure on their CAI Activities in RIIO-ET2 is less than their CAI Allowances shall be considered ineligible for any additional CAI Allowances under the OE Review Mechanism.

Criterion 2: Materiality test

An ETO's outturn total RIIO-ET2 CAI expenditure (both internal and external) on all OE Closeout Re-openers, must exceed the total CAI allowances provided through the OE by more than 40%.

Rationale

6.9 We are proposing to introduce the OE Review Mechanism because of the ETOs' claim that our implementation "… will lead to a material and systematic under-

funding of all projects subject to re-opener applications...[leading to] an estimated £300m shortfall in funding across all TOs".

6.10 We agree that, if demonstrated and substantiated, a shortfall in the value of funding received for operational expenditure incurred across relevant projects for the duration of the price control period of £300m (or more) is appropriate to be considered as a material amount for the purposes of this criterion.

6.11 Prior to our October 2023 OE Decision, the ETOs provided the workings underpinning their £300m under-funding estimates. ETOs based their estimates on the relevant re-opener applications that they were at the time expecting to submit, and the impact that they expected the treatment of Embedded CIs in OE calibration would have on the allowances they receive through the OE mechanism. We have summarised the results in **Table 2** (rows A to C) below.

6.12 We had originally, in our October 2023 OE Decision, suggested a threshold of 15%. However, our further analysis, as explained in Appendix 6, suggests that this is far too low, and based on the ETOs estimates of proportion of Embedded CIs in the OE calibration data the appropriate level should be around 40-45%. We are now therefore proposing to set it at 40%. **Table 2** below illustrates that if the ETOs claims of under-funding are correct then the 40% threshold should still be comfortably exceeded for all three ETOs.

Table 2 – Criterion 2: Expected results based on ETOs' claimed under-funding

1. ETOs' claimed under-funding

		Source/Calculation	Units	NGET	SHET	SPT	Total
A	CAI forecast efficient expenditure	ETOs' estimates	£m	134	75	304	512
B	CAI Allowances set through OE	ETOs' estimates	£m	53	25	134	212
C	ETO claimed under-funding	= A - B	£m	81	49	170	300

2. Criterion 2: Materiality Test - Expected outcome based on the ETOs' claimed under-funding

D	Criteria 2 Threshold Value	Proposed threshold	%	40%	40%	40%	40%
E	Over-spend required to meet threshold	= B x D	£m	21	10	54	85
F	Result: Has the threshold been met?	= If C > E then "Yes", If C < E then "No"	Yes/No	53 > 21 **Yes**	25 > 10 **Yes**	134 > 54 **Yes**	212 > 85 **Yes**

3. Comparison of claimed underfunding against Baseline Allowances

		Source/Calculation	Units	NGET	SHET	SPT	Total
G	Totex Allowances	ETOs' estimates*	£m	7,788	4,869	2,362	15,020
H	Claimed under-funding as % of Totex Allowances	= C ÷ G	%	1.0%	1.0%	7.2%	2.0%

** from ETOs' 2022/23 annual regulatory returns*

6.13 Taking 40% of the ETOs' estimated CAI Allowances gives us an estimate of the level of over-spend that would need to be in evidence in order to hit the threshold (row E).

6.14 We can see from row F that if, at the end of RIIO-ET2, the under-spend in the order of magnitude similar to the ETOs modelled forecast underspend this threshold will be passed comfortably.

6.15 However, it is possible that ETOs will deliver some efficiencies in their delivery. We expect efficiencies to lead to under-spend against allowances. The effect of efficiencies could therefore be to reduce the apparent impact of any systematic under-funding.[20] To account for potential efficiencies, we are proposing to set the threshold at 40%. In our view, this is appropriate as the threshold is used only as a first pass assessment and does not necessarily mean that our final assessment will conclude that material and systematic under-funding has taken place.

6.16 To help understand materiality in the context of the full price control, we also show in **Table 2** (rows G to H), comparison of the ETOs' estimated under-funding against current estimated Totex Allowances.[21] The ETOs' estimated under-funding, although a large amount for consumers to pay, represents only around 2% of the ETOs estimated Totex Allowances. This highlights the need for these eligibility Criteria, as the resources required to both develop and implement the OE Review Mechanism must be proportionate.

Criterion 3: Systematic test

An ETO must have overspent on more than 80% of the re-opener projects covered by the OE mechanism.

Rationale

6.17 Please see Appendix 5 for a detailed explanation of what we mean by 'systematic under-funding'.

6.18 In simple terms, a 'systematic effect', leading to 'systematic under funding', will occur if a certain factor, outside of the ETOs direct control, causes allowances set through a mechanism to be consistently lower than the efficient levels.

[20] See Appendix 5 for an explanation of the difference between under-funding and over-spend
[21] Please note that the Totex Allowance estimates are taken from the ETOs 2022/23 Regulatory Reporting Packs (RRPs) and therefore should reflect their best estimate of the allowance they expect to receive over RIIO-ET2 taking account of expected adjustments through Volume Drivers, re-opener mechanisms, and any other Uncertainty Mechanisms.

6.19 For the OE mechanism, there are two possible ways to demonstrate that the manner in which Contractor Indirects were treated when we calibrated the OE may lead to systematic under-funding:

- Recalibration method (direct method): Is to re-visit the RIIO-ET1 data that was used for calibration and re-classify any Contractor Indirects (that were originally reported as Direct Costs) as CAI Activity Costs. The calibration exercise would then be re-run using the re-categorised data and new recalibrated CAI Allowances calculated. The level of over-funding or under-funding would be the difference between the new CAI Allowances and the original CAI Allowances.

  [Under-funding] = [Recalibrated CAI Allowances] – [Original CAI Allowances]

- Statistical method (indirect method): Is to indirectly infer whether systematic under-funding has occurred. This is done by looking at the funding outcomes on the projects that have been funded through the OE and assess whether, as a whole, the complete dataset of relevant projects bear the statistical characteristics of a complete dataset of relevant projects in which systematic under-funding has occurred. This must necessarily be done on a probabilistic basis.

6.20 ETOs have informed us that they do not have the required information on contractor costs to enable them to reliably re-categorise RIIO-ET1 CIs used in the calibration of the OE. It is therefore not possible to use the recalibration method. This means that the OE Review Mechanism must use statistical method to determine whether material and systematic under-funding has occurred.

6.21 For factors to be considered to cause systematic under-funding, the effects would need to be consistently high enough to push the average level of under-funding outside of the range that we would expect due to other factors.

6.22 In determining eligibility all expenditure and allowances must be correctly categorised in compliance with the relevant Direct Activity and CAI Activity RIGs definitions[22].

[22] https://www.ofgem.gov.uk/decision/decision-modifications-regulatory-instructions-and-guidance-rigs-regulatory-reporting-packs-rrps-and-price-control-financial-model-pcfm-guidance-riio-et2-year-3-electricity-transmission

Comparison against RIIO-ET1 Volume Driver Mechanisms

6.23 We have also carried out some comparative analysis to test the proposed 80% threshold against the outcomes that we have seen from RIIO-ET1 Volume Driver mechanisms. Please see Appendix 6 for explanation and results from the analysis.

7. Implementation of the OE Review Mechanism

Questions

Q17. Do you agree that the OE Review Mechanism should be implemented through the RIIO-ET2 Closeout process?

Q18. Do you agree with the proposed review process?

Q19. Do you agree that the burden of proof to justify additional allowances under the OE Review Mechanism shall be on ETOs?

Q20. Do you agree that all decisions made by Ofgem under the OE Review Mechanism, including a decision to not award additional allowances should be appealable to the CMA?

7.1 As explained above (Chapter 3), we are proposing to introduce the OE Review Mechanism, because of the theoretical risk of under-funding and the ETOs estimate that, because of the way CIs were treated when we calibrated the OE, they will be under-funded by around £300m in RIIO-ET2.

7.2 The statistical method of demonstrating under-funding requires projects to have been undertaken and actual costs revealed. This in turn means OE Review Mechanism will need to part of the 'Close out' of the RIIO-ET2 price control.

7.3 We explain in Chapter 6 that by looking at an individual project it is not possible to determine whether any over-spend or under-spend is due any systematic effects. It is therefore not possible to demonstrate on a project-by-project basis, and ahead of all projects completing, that the treatment of Embedded CIs in the calibration of OE has led to material and systematic under-funding. We are proposing to implement the OE Review Mechanism through the RIIO-ET2 Closeout process, when the majority of projects will be complete, and suitable empirical evidence of material and systematic under-funding may be available.

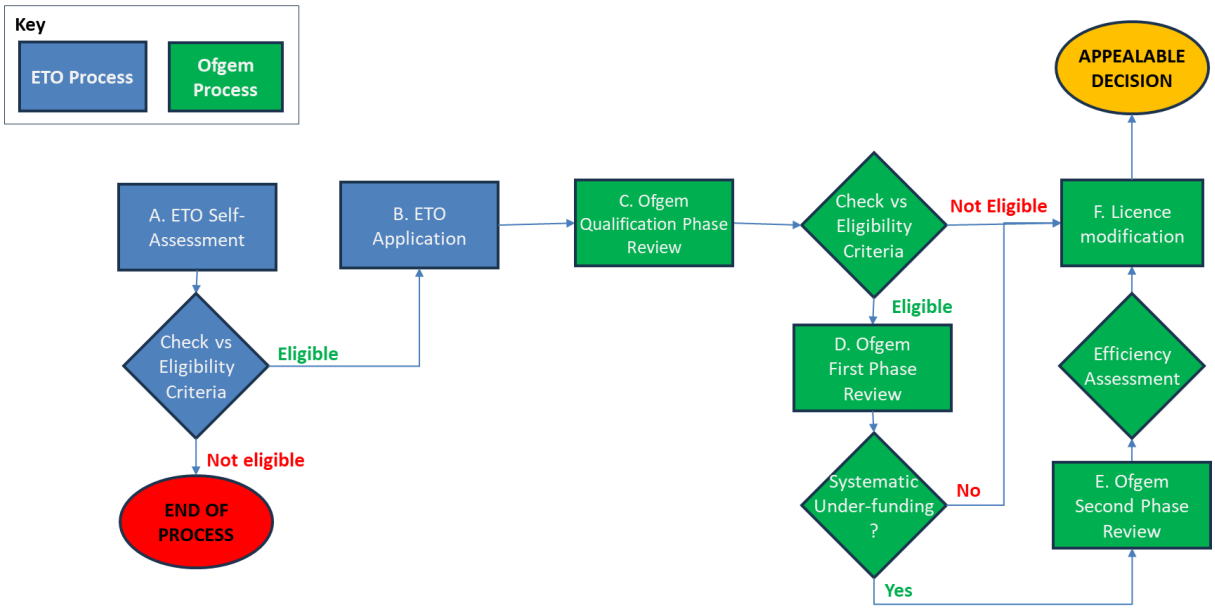
7.4 At RIIO-ET2 Closeout, having fully considered any evidence provided, Ofgem will determine the final value of any under-funding across the full portfolio of relevant projects. Where Ofgem concludes that insufficient evidence has been provided, Ofgem may determine a value of zero

7.5 To the extent that ETOs have responded to Ofgem's reasonable requirements for information, and based on the information provided by the TOs, Ofgem will consider whether there is evidence that the allowances under Ofgem's approach have under-funded the ETOs. Where the criteria set have been met, and the

detailed quantitative assessment has concluded and the evidence validated, the decision will be to proceed to make an allowance adjustment. The adjustment value will be calculated in accordance with the formulae in Chapter 8 and reflect our assessed level of under-funding. The adjustment will be implemented through licence modification.

The Review Process

Figure 2 – The proposed process for implementing the OE Review Mechanism



7.6 We are proposing that the OE Review Process consists of seven stages (A to E) as illustrated in **Figure 2** above, and explained below:

A. ETO Self-Assessment: The ETO will assess its outturn RIIO-ET2 CAI expenditure on completed projects against the Eligibility Criteria (see Chapter 6).

- Where the ETO assesses that it meets the Eligibility Criteria,it may make an application to Ofgem (Stage B) for a funding adjustment.
- Where the ETO assesses that it does not meet the Eligibility Criteria, the process ends for that ETO.

B. ETO Application: ETOs that have passed the self-assessment will be eligible to make an application to Ofgem for additional allowances to correct for assessed under-funding of CAI Activities in RIIO-ET2. See Chapter 9 (Evidential and reporting requirements) for a high level explanation. Full

details of the reporting requirements will be consulted on as part of the RIIO-ET2 Closeout Methodology.

C. Ofgem Qualification Phase Review: On receipt of the relevant application, Ofgem will assess against the Eligibility Criteria to verify the ETO's self-assessment.

- Where Ofgem assesses that the ETO meets the Eligibility Criteria, it will proceed to Stage D: First Phase Review.
- Where Ofgem assesses that the ETO does not meet the Eligibility Criteria, the determination will be to award zero additional allowances. This determination will be made at Stage F: Licence Modification on conclusion of the review process for all three ETOs.

D. Ofgem First Phase Review: Ofgem will review in more detail the evidence that the ETO has provided to it as part of its application to determine whether it supports a view that the treatment of Embedded CIs in the calibration of the OE has led to material and systematic under-funding. Ofgem may ask supplementary questions or for additional data at this stage. This First Phase Review will include, but not be limited to, consideration of whether the over-spend against allowances was attributable to:

a. inefficient expenditure in delivering the project, and
b. identified factors other than the treatment of Embedded CIs in calibration of the OE.

- Where the Ofgem assesses that sufficient evidence of material and systematic under-funding does not exist, the determination will be to award zero additional allowances. This determination will be made at Stage F: Licence Modification on conclusion of the review process for all three ETOs.
- Where Ofgem assesses that sufficient evidence exists to support a view of material and systematic under-funding, the review will proceed to Stage E.

E. Ofgem Second Phase Review: The purpose of the Second Phase Review is to determine the value of any additional allowances to be awarded to relevant ETOs. This will involve detailed quantitative assessment of inefficiencies and the impact of other identifiable factors.

The adjustment value will be calculated in accordance with the formulae in Chapter 8.

F. Licence Modification: the outcome of the review will be implemented through licence modification. This will include the outcomes of reviews that concluded at Stages C, D, and E. This will be subject to the normal statutory consultation, decision, and appeal processes for licence modification decisions.

Burden of proof

7.7 The purpose of the proposed OE Review Mechanism is to give the ETOs a further opportunity at RIIO-ET2 closeout, to demonstrate, by providing empirical, evidence that material and systematic under-funding (due to treatment of Embedded CIs in calibration of the OE) is not just a theoretical possibility and has in fact occurred.

7.8 We therefore propose that if an ETO is of the view, subject to meeting the Eligibility Criteria, that net under-funding has occurred, then the burden of proof shall be on ETO to justify additional allowances under the OE Review Mechanism. To do so an ETO must first demonstrate that that material and systematic under-funding due to the treatment of Embedded CIs in the calibration of the OE has occurred, see Appendix 4. This must:

a. include robust, objective, verifiable, and auditable quantification of the value of under-funding, and

b. be supported by verifiable empirical evidence, (including the drivers of the level of expenditure incurred against the relevant projects across the price control period, the impact of each driver and the reasons why the ETO considers the impact to be outside the ETO's direct influence and control).

Right of appeal

7.9 For any ETO the following outcomes of the OE Review Mechanism are possible:

2. 1. We determine that the eligibility criteria have not been met. In this instance, the decision will be to set the value of the proposed allowance adjustment at zero. We determine that the eligibility criteria have been met. There are two potential outcomes:

a) We determine that the evidence provided by the ETO is not sufficiently strong to demonstrate material and systematic under-funding. In this instance, the decision will be to set the value of the proposed allowance adjustment at zero.

b) We determine that the evidence provided by the ETO is sufficiently strong to demonstrate material and systematic under-funding. In this instance, the decision will be to proceed to make an allowance adjustment. This will reflect our assessed level of under-funding, potentially with adjustments to reflect the outcome of Ofgem's Second Stage Review.

7.10 In all of the above outcomes ETOs and interested stakeholders[23] (i.e. those with sufficient interest in the matter as defined in legislation) have the right to appeal Ofgem's decision by way of Judicial Review (JR). In the case of outcome 2.b) interested stakeholders have the right of appeal to the Competition and Markets Authority (CMA), as the award of additional allowances usually requires a licence modification under s.11A of the Electricity Act 1989.

7.11 However, ETOs have suggested that it would be appropriate to have the same appeals framework apply to all outcomes where Ofgem makes a determination, including determinations to award zero additional allowances. We invite stakeholders views, and arguments in favour or against, extending the right of appeal to the CMA to outcomes 1) and 2a) above.

7.12 Our intention is for the finalised OE Review Mechanism to be added into the RIIO-ET2 licence, through modifications to SpC 3.36 and following the statutory licence modification process. ETOs will have the right to appeal the licence modification decision by way of an appeal to the CMA at that point in time.

7.13 Provisions necessary to enable any subsequent adjustments to allowances will be included in the ETO RIIO-3 licences. The licence condition will be drafted so that any decision under this mechanism, including a determination to not award additional funding, will require a licence modification and will therefore be appealable to the CMA.

7.14 Should the stakeholders agree that ETOs should have the right to appeal all decisions, even a decision to award zero additional allowances, to the CMA (Consultation Question Q20), then we will publish further informal consultations in RIIO-ET2 on necessary licence conditions ahead of wider RIIO-ET3 licence statutory consultations (see Chapter 10 Next steps).

7.15 **Table 3** below summarised the existing arrangements for the potential OE Review Mechanism outcomes, i.e. JR and/or appeal to the CMA, as well as the

[23] In legal terms "applicants with standing": s.31(3) Senior Courts Act 1981, when seeking permission from the High Court to bring a JR a party has to show sufficient interest in the matter.

arrangements that we are proposing to introduce for the OE Review Mechanism following licence modification.

Table 3 – OE Review Mechanism outcomes: initial appeal routes

Outcome (Ofgem determination)	**Existing initial appeal routes: JR**	**Existing initial appeal routes: CMA***	**Proposed initial appeal routes: JR**	**Proposed initial appeal routes: CMA***
1) Eligibility criteria have not been met. Zero adjustment to allowances.	✓	x	x	✓
2a) Eligibility criteria have been met. Zero adjustment to allowances.	✓	x	x	✓
2b) Eligibility criteria have been met. Additional allowances awarded to ETO.	x	✓	x	✓

*There is subsequent right of JR in all cases where a party is unsuccessful in initial appeal to the CMA.

8. Determining the value of any funding adjustments

Questions

Q21. Do you agree with our proposal for determining the value of under-funding?

8.1 The value of under-funding, and adjustment to allowances will be determined in accordance with Equation 1 below:

Equation 1

$$OETU = Max(0, ECAI_{DET} - OECAI)$$

Where:

OETU: is the total value of the Opex Escalator True-up allowance Adjustment.

$ECAI_{DET}$: is the Ofgem assessed value of total efficient CAI expenditure across the OE Closeout Re-openers, and calculated in accordance with Equation 2, below.

OECAI: is the total of CAI allowances provided through the OE in RIIO-ET2

Equation 2

$$ECAI_{DET} = ECAI_{ETO} - ECAI_{ADJ}$$

Where:

$ECAI_{ETO}$: is the ETO assessed value of total efficient CAI expenditure across the OE Closeout Re-openers.

$ECAI_{ADJ}$: is the total of Ofgem determined adjustments to the ETOs' assessed values comprising $ECAI_{ETO}$. This may include, but may not be limited to, adjustments for delivery inefficiencies, identified factors other than the treatment of Embedded CIs in calibration of the OE that contribute to over-spend against allowances, and appropriate consideration of trade-offs against other categories.

9. Evidential and reporting requirements

Questions

Q22. Do you agree that all costs and allowance values must be classified in accordance with the relevant RIIO-ET2 electricity transmission licence definitions and RIGs activity definitions?

Q23. Do you agree with our view on the evidence to be provided by ETOs?

9.1 For the purpose of implementing the OE Review Mechanism, all costs and allowance values must be classified in accordance with the relevant RIIO-ET2 electricity transmission licence definitions and RIGs activity definitions. ETOs should use all reasonable efforts to address the differences in reporting between Ofgem's expectations on the relevant RIIO 2 electricity transmission licence definitions, and the data provided to date.

9.2 We remain open to continuing our engagement with the ETOs and work together with them to agree practical means by which they can comply with the current RIGs reporting requirements. In doing so, we will consider any necessary clarifications and practical distinctions between data reported by ETOs relating to projects that are now closed, and data relating to projects that close from this point forward.

9.3 Agreed reporting requirements will ensure that the data we receive from the ETOs demonstrates cost control and project governance oversight, and any subsequent decisions it informs, helping to further our principal objective to protect the interests of existing and future electricity consumers.

9.4 The ETO is required to provide suitable evidence in support of its estimate of $ECAI_{ETO}$. This must include, as minimum:

A. Outturn CAI expenditure in RIIO-ET2, broken down by:
    a. Project
    b. CAI sub-activity (as per the RIGs), further broken down by:
        i. Internally incurred
        ii. Externally incurred

B. A project-by-project schedule of costs incurred, including all invoices from any contractor where the total value of the invoices from that contractor on the project exceeds £100k. Invoices below this value may be aggregated into a single entry. The schedule must be reconciled to the company's

underlying accounting records and to any subsequent attribution and allocation to regulatory reporting categories in compliance with the RIGs.

C. Reconciliation of total project expenditure to associated total allowances.

D. For external spend, evidence must include, where available:

    a. Project contract; schedule of works which includes the CAI functions being delivered by 3rd parties; project engineer sign-off for works delivered and project completion.

E. For Internal spend, evidence must include, where available:

    a. Number of Full Time Equivalent (FTE) personnel assigned to projects under review; nature of the CAI sub-category they have performed on the project; timesheets and salary rates of internal staff performing CAI activities for the projects reviewed where available; where timesheets are not available, evidence and justification of attribution methodologies for internal staff assigned to project, this should be at an appropriate level of granularity of both time and FTE rate.

F. Explanation of any methodologies and assumptions that it has applied in estimating the breakdown at A above, including any approaches necessary to attribute costs to different cost categories or to parties incurring them,

G. Estimates and explanation of any areas of efficiency or inefficiency it has identified in A above, The ETO's final view of efficient levels of CAI on its re-opener projects covered by the OE, having considered A and F above, and including the drivers of the level of expenditure incurred against the relevant projects across the price control period, the impact of each driver and the reasons why the ETO considers the impact to be outside the ETO's direct influence and control.

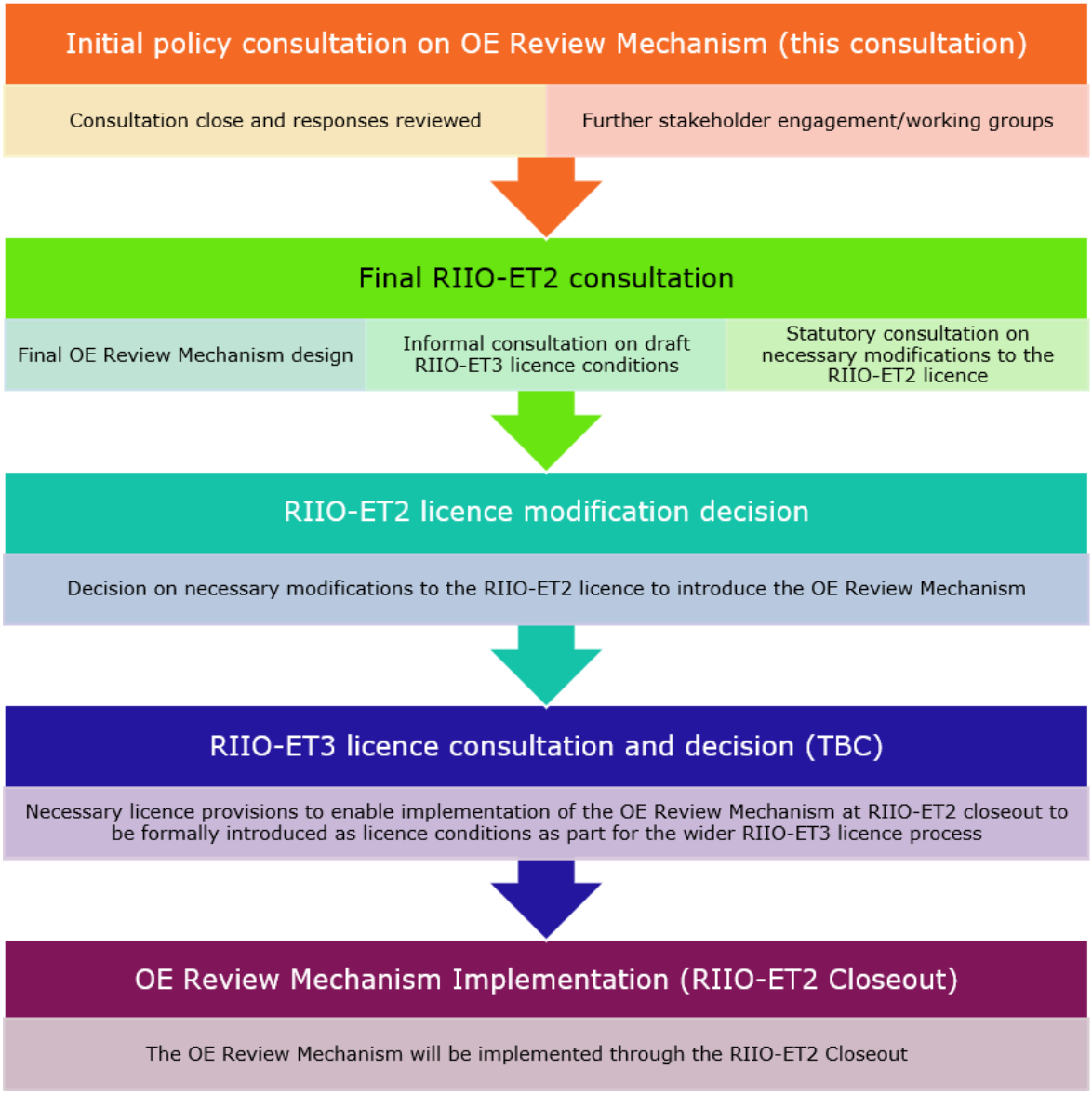
10. Next steps

Responding to this consultation

8.1 We welcome your responses to this consultation, both generally, and in particular on the specific questions. Please send your response to: Sai.Lo@ofgem.gov.uk. The deadline for response is 26 September 2024.

8.2 We will carefully consider all consultation responses before finalising the next steps.

Figure 3: Outline of next steps



Appendices

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Appendix 1 – Glossary

Term	Reference	Definition
Baseline Allowance	October 2023 OE Decision	For the purpose of this document, Baseline Allowance means the allowance for the Direct Expenditure for ETO in RIIO-ET2 FDs.
Closely Associated Indirect (CAI)/ CAI Activity	RIIO-ET2 RIGs	collectively includes the activities listed below: • Operational IT and telecoms • Project Management • Network Design and Engineering • System Mapping • Engineering Management and Clerical Support • Network Policy • Health, Safety and Environment • Operational Training • Stores and Logistics • Vehicles and Transport • Market Facilitation • Network Planning More details associated with each of the indirect activities listed above can be found in Table D4.3 Closely Associated Indirects (CAI) of the RIIO-T2 Electricity Transmission Price Control – Regulatory Instructions and Guidance on Data Templates.[24]
Contractor Indirects	October 2023 OE Decision	means the fees charged, either directly or as part of a wider scope of works, for the delivery or provision of any Closely Associated Indirect Activity by a contractor on behalf of an ETO.
Direct Activities	RIIO-ET2 RIGs	means those activities which involve physical contact with system assets. INCLUDES: • Labour cost of staff whose work involves physical contact with system assets. This can include the element of labour costs associated with trench excavation staff, craftsmen, technicians, technical engineers, administration and support staff, network planners and designers where a portion of their time involves physical contact with system assets, however only that portion spent on direct activities may be included. It will include idle, sick, non-operational training and other downtime of staff, which cost should follow their normal time allocations.

[24] Decision on modifications to the Regulatory Instructions and Guidance (RIGs), Regulatory Reporting Packs (RRPs) and the Price Control Financial Model (PCFM) Guidance: RIIO-ET2 Year 3 - Electricity Transmission | Ofgem

Term	Reference	Definition
		• Operational engineers working on commissioning of assets, physically changing protection settings, issuing safety documentation or liaising with the control centre are considered direct activities. • The cost of contractors being the total charges invoiced by external contractors for the primary purpose of performing direct activities. • The cost of materials drawn from stores or purchased and delivered directly to site for use in performing direct activities. In addition, this includes the cost of the materials (stores issues) for refurbishing system assets. • Servitude and easement payments to enable the direct activity to be performed. This does not include the cost of management or administration of these. • Related Party Margins charged by a Related Party for work performed on direct activities. In addition, includes, for the purposes of flooding, site surveys and non-site based costs.
Direct Activity Allowances	October 2023 OE Decision	means the allowances for the ETO to undertake Direct Activities.
Direct Costs	RIIO-ET2 RIGs	means the expenditure incurred undertaking Direct Activities.
Direct Expenditure	RIIO-ET2 RIGs	means the expenditure incurred undertaking Direct Activities.
Indirect Activities	RIIO-ET2 RIGs	Activities listed below, which in most cases support work being physically carried out on network assets, that could not, on their own, be classed as a direct network activity. Indirect Activities generally do not involve physical contact with system assets, whereas direct activities do. INCLUDES: • Closely Associated Indirects • Business Support Costs • Non-Operational Capex. Note that operational engineers working on planning and project mobilisation, preparing and planning associated with protection settings, administration of outages, contract specification and liaising with contractors and customers are considered Indirect Activities. EXCLUDES:

Term	Reference	Definition
		• site surveys and non site based costs associated with flooding (in Direct Activities) • resourcing and project preparation and Second Tier bid preparation associated with Low Carbon Networks (in Direct Activities).
CAI Activity Allowances	October 2023 OE Decision	means the allowances for the ETO to undertake activities listed under Closely Associated Indirects.
CAI Costs	RIIO-ET2 RIGs	For the purpose of this document, CAI Costs means the cost incurred undertaking activities listed under CAI. Note: In RIIO-ET2 RIGs, Indirect Costs means the cost incurred undertaking Indirect Activities (including CAI, Business Support Costs and Non-operational Capex).
CAI Activity Costs	October 2023 OE Decision	see CAI Costs.
Embedded CIs	This document	means the CIs embedded in project Direct Activity Costs.
Medium Sized Investment Project (MSIP)	Electricity Transmission Special Licence Conditions	means a project of the kind listed at paragraph 3.14.6 of SpC 3.14 (Medium Sized Investment Projects Re-opener and Price Control Deliverable).
October 2023 OE Decision	This document	means the licence modification decision published on 6 October 2023 to modify NGET's licence in order to give effect to the NGET 2022 MSIP Decision (https://www.ofgem.gov.uk/decision/decision-modify-special-conditions-electricity-transmission-licence-held-national-grid-electricity-transmission-plc)
NGET 2022 MSIP Decision	October 2023 OE Decision	our 19 April 2023 decision on NGET's 2022 applications relating to five projects under the MSIP Re-opener mechanism (https://www.ofgem.gov.uk/publications/decision-ngets-2022-msip-re-opener-applications).
Opex Escalator (OE)	October 2023 OE Decision	The uncertainty mechanism under Special Condition 3.36 of the electricity transmission licence, as well as the volume driver parameter value used to adjust CAI Activity Allowances for varying Direct Activity Allowances under this mechanism.
Price Control Deliverable (PCD)	RIIO-ET2 FDs	In RIIO-ET2, we will use PCDs to capture those outputs that are directly funded through the price control and where the funding provided is not transferrable to a different output or project. The purpose of a PCD will be to ensure the conditions attached to the funding are clear up-front.
Regulatory Instructions and Guidance (RIGs)	RIIO-ET2 FDs	A document that is published as part of the price control settlement which sets out further detail on how the price control is to be implemented and how compliance with it

Term	Reference	Definition
		will be monitored.
Re-opener	RIIO-ET2 FDs	An Uncertainty Mechanism used in certain limited and pre-defined circumstances, which may amend revenue allowances, outputs and/or delivery dates within the price control period.
Return Adjustment Mechanism (RAM)	RIIO-ET2 FDs	Failsafe mechanisms to mitigate the future risk of companies earning materially higher or lower than expected returns in a changing system.
RIIO-ET2 Closeout	This document	The RIIO-ET2 electricity transmission price control will run from 1 April 2021 until 31 March 2026 (a five year period). The RIIO-3 electricity transmission licence and RIIO-3 Financial Handbook will be developed to make provision in relation to several areas which, due to their uncertain nature, can only be settled once all costs and/or outputs are known or can be forecast with sufficient accuracy. This means that some elements of the price control need to be subject to "closeout" once the price control has ended and all the relevant information is available.
Totex Allowance		means the sum of values under the heading "Totex allowance" in the "Input" sheet of the ET2 Price Control Financial Model.
Totex Incentive Mechanism (TIM)	Electricity Transmission Special Licence Conditions	means the mechanism within the ET2 Price Control Financial Model which provides for the licensee to bear a specified share of any overspend, or retain a specified share of any underspend, represented in either case by a difference between: (a) the licensee's Totex Allowance; and (b) the licensee's actual totex expenditure.
Uncertainty Mechanisms (UMs)	RIIO-ET2 FDs	Uncertainty mechanisms allow changes to the ex ante[25] base revenue during the price control period to reflect significant cost changes that are expected to be outside the company's control. Common UMs apply to all or some of the energy sectors, whereas bespoke UMs apply to one network company.
Volume Driver	RIIO-ET2 FDs	An Uncertainty Mechanism allowing revenue to vary as a function of a volume measure (eg number of new connections).

[25] See footnote 6 on page 11

Appendix 2 – List of re-opener mechanisms to which OE is applicable

1. Generation Connections Volume Driver (Applicable to all three ETOs: NGET, SPT and SHET)
2. Demand Connections Volume Driver (NGET and SPT)
3. Wider Works Volume Driver (NGET only)
4. The Visual Impact Mitigation Re-opener and Price Control Deliverable and Enhancing Pre-existing Infrastructure Projects allowance (NGET, SPT and SHET)
5. Medium Sized Investment Projects Re-opener and Price Control Deliverable (NGET, SPT and SHET)
6. Fibre Wrap Replacement Re-opener (NGET only)
7. Civil Related Works Re-opener (NGET only)
8. Tower Steelworks and Foundations Re-opener (NGET only)
9. Tyne Crossing Project Re-opener (NGET only)
10. Bengeworth Road GSP Project Price Control Deliverable (NGET only).
11. Uncertain non-load related projects Re-opener (SPT only)
12. Subsea Cable Re-opener (SHET only)

Appendix 3 – Consultation questions

Q1. Do you agree that it would be in the interest of consumers to introduce an OE Review Mechanism for the purposes explained?

Q2. Do you agree that ETOs should be awarded additional allowances only where there is clear empirical evidence of material and systemic under funding of CAI Activities versus efficient levels on the re-opener mechanisms covered by the OE?

Q3. Given your responses to Q1 and Q2 do you agree that there should be no clawback of allowances through this mechanism in cases where the empirical evidence suggest material and systematic over-funding of RIIO ET2 CAI Allowances?

Q4. Do you have views on the risks and risk mitigations associated with introducing the OE Review Mechanism? Are there any risks we have not yet identified that should be considered in our decision on whether or not to introduce the OE Review Mechanism, or that need to be further mitigated in its design?

Q5. Do you agree, that for the purpose of defining the scope of the OE Review Mechanism, we should assume that the net impact of the treatment of Embedded CIs in allowance setting in all categories other than Category 4 (CAI Allowances set through re-opener mechanisms) is zero?

Q6. Do you agree that Volume Driver mechanisms to which the OE applies should be excluded from scope?

Q7. Given your responses to Q5 and Q6, and any other relevant considerations, do you agree with the proposed scope of the OE Review Mechanism?

Q8. Do you agree that we should use eligibility criteria and that ETO should only be considered eligible for consideration under the OE Review mechanism where all the proposed eligibility criteria have been met?

Q9. In your view should any additional eligibility criteria be considered?

Q10. Do you agree with our explanation of what we mean by systematic under-funding in this context? [see Appendix 5]

Q11. Do you agree with the two methods (direct and indirect) for testing for systematic under-funding? Do you agree that the direct method is not possible in the case of the OE? [see Appendix 5]

Q12. Do you agree that it is appropriate to consider RIIO-ET1 Volume Driver mechanisms as examples of Volume Driver mechanisms that have worked as intended (i.e. the allowances set through them were within acceptable bounds)? [see Appendix 5]

Q13. Do you agree with the overall threshold value assessment approach? [see Appendix 6]

Q14. Do you agree with that the standard deviation and mean values that we have assumed to be appropriate for this purpose? If not then do you have evidence or proposals to allow us derive ones you would consider to be more appropriate? [see Appendix 6]

Q15. Do you have any views on the simulation modelling (in the accompanying Excel file) that we have used to help validate the threshold values? [see Appendix 6]

Q16. Do you agree that the three proposed eligibility criteria are appropriate? Please provide your views on each of the three proposed criteria, including the appropriateness of the proposed threshold values.

Q17. Do you agree that the OE Review Mechanism should be implemented through the RIIO-ET2 Closeout process?

Q18. Do you agree with the proposed review process?

Q19. Do you agree that the burden of proof to justify additional allowances under the OE Review Mechanism shall be on ETOs?

Q20. Do you agree that all decisions made by Ofgem under the OE Review Mechanism, including a decision to not award additional allowances should be appealable to the CMA?

Q21. Do you agree with our proposal for determining the value of under-funding?

Q22. Do you agree that all costs and allowance values must be classified in accordance with the relevant RIIO-ET2 electricity transmission licence definitions and RIGs activity definitions?

Q23. Do you agree with our view on the evidence to be provided by ETOs?

Appendix 4 – OE development and calibration

1 Introduction

A4.1.1 We explained in the October 2023 OE Decision that ETOs disagree with how the OE is being implemented due to the impact of Contractor Indirects (CIs) on the OE values that we set at RIIO-ET2 FDs. We explain below how we calibrated the OE and why the ETOs view is incorrect. This explanation is mainly taken from our October 2023 OE Decision. We do not repeat every relevant point from the October 2023 OE Decision and we therefore direct anyone requiring a full understanding to read the Decision.

2 Data used to calibrate the OE and the treatment of Embedded CIs

When we calibrated the OE the aim was to estimate the relationship between efficient Direct Activity Costs and efficient CAI Costs, i.e. to estimate how much additional CAI Costs and efficient company would incur for each additional pound of Direct Cost it incurs. In order to accurately estimate the relationship we need a large dataset of projects from efficient companies with the value of Direct Activity Costs and CAI Costs incurred on each project.

A4.2.2 We used the historical data that the ETOs provided on their RIIO-ET1 project delivery for this purpose and made the assumption that they were efficiently delivered.

A4.2.3 We were aware at the time of calibration that the data we used treated some CIs as Direct Costs. This was because, although the requirements to separately report Direct Activity Costs and CAI Costs was clear, the ETOs were unable to reliably separate the CIs from the Direct Costs and to correctly categorise them as CAI Costs in accordance with the definitions in place. We refer to these as Embedded CIs in this document.

A4.2.4 ETOs subsequently submitted high-level analysis which purported to show that the treatment of Embedded CIs in the OE calibration would, in their view, lead to systematic under-funding versus efficient levels in RIIO-ET2 of approximately £300m.

A4.2.5 The ETOs proposed that instead of the OE being implemented on re-opener applications in accordance with the originally intended implementation that Ofgem should directly determine CI allowances on each project and these CI allowances should be treated as additional Direct Activity Allowances. The OE

would then be applied to these Direct Activity Allowances (inclusive of CI allowances) to determine the project CAI Activity Allowances.

A4.2.6 We rejected the ETOs suggestion, in large part, due to the need to directly assess CIs, which would mean that the OE would no longer be an automatic mechanism.

3 Alternative CI treatment option for calibrating the OE

A4.3.1 The alternative approach for Embedded CIs would have been to apply adjustments to the historical data prior to calibration of the OE to remove the Embedded CIs from RIIO-ET1 Direct Activity Costs, to re-allocate them as CAI Activity costs, and then to calibrate the OE using the re-categorised data.

A4.3.2 We made the conscious decision not to adopt this alternative for OE calibration as we considered that it would not have been in the best interests of consumers. This is because:

- it would require us to apply broad unverifiable assumptions, and
- the arbitrary nature of the approach would shift the benefit of the doubt from consumers to the ETOs.

4 How the OE was set and calibrated

A4.4.1 The OE values given in paragraph 3.5 above were set (calibrated) at RIIO-ET2 FDs.

A4.4.2 We utilised regression analysis to calibrate the OE for each of the ETOs. Regression analysis is an econometric technique that is used to estimate the relationship between the value of a dependent variable (in our case CAI Activity Costs) and one or more explanatory variables (Direct Activity Costs). The result of the regression analysis, the OE, is a percentage that provides an indication of how much we would expect CAI Activity Costs to vary if Direct Activity Costs increase or decrease. For example, NGET's OE is 16.89%. This means that if NGET carries out work with £100 of Direct Activity Costs, we expect it to also incur £16.89 in CAI Activity Costs (i.e. £100 x 16.89%).

A4.4.3 In calibrating the OE, multivariate regression analysis was utilised. This is the same as the above, the difference being that more than one explanatory variable is included. We included one additional variable in our regression, Modern Equivalent Asset Value ('MEAV'), which is a measure of the volume of network assets that an ETO has on its network (and thus is a proxy measure for the size of the network). MEAV was included as we found CAI Activity

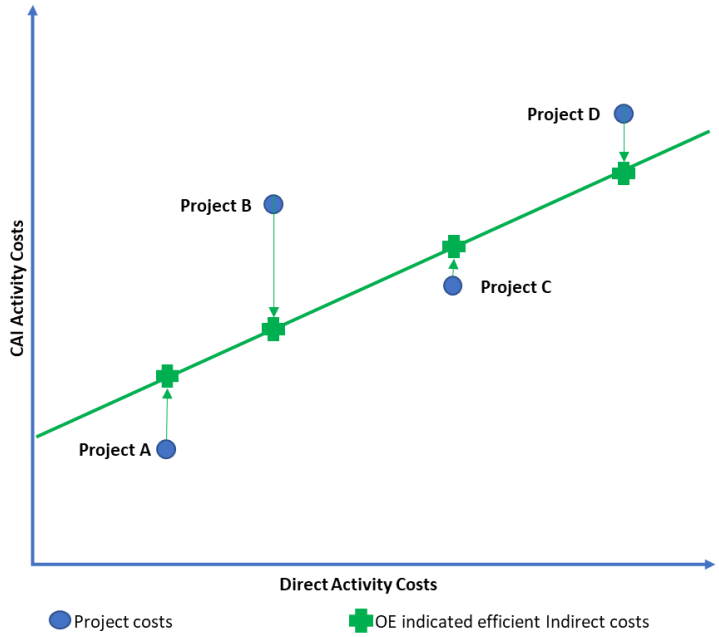
Costs to have a stronger relationship with MEAV and Direct Activity Costs in combination, than CAI Activity Costs does with Direct Activity Costs alone. Its inclusion accounts for the likelihood that the relationship between efficient Direct Activity Costs and efficient CAI Activity Costs might vary with size of the network.

A4.4.4 Additionally, as with all regression analysis we end up with an error term.[26] The error term exists because the relationship between dependent and explanatory variables will not hold precisely for all datapoints (projects). This is illustrated in **Figure 4** below where the OE is denoted by the green line, which gives the relationship between Direct Activity Costs and CAI Activity Costs. The relationship holds on average, but the majority of projects will not sit exactly on OE line, some will be above it and others will be below it. The error term is a result of this imperfection in the relationship. The further away on average the projects are from the OE line the larger the error term will be.

A4.4.5 We can therefore only be sure that the relationship suggested by the OE applies on average across the calibration dataset, i.e. the historical project portfolio. This does not necessarily mean that it will hold precisely across a future portfolio of projects, and will almost certainly not hold if we consider individual projects based on the information and intelligence that the ETOs have provided in support of their position to date.

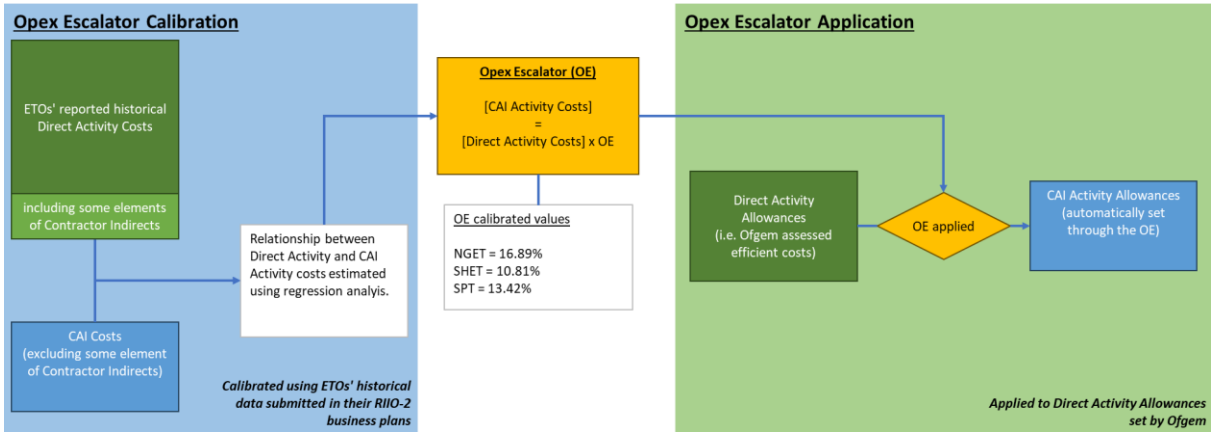
[26] An error term represents the margin of error around the outputs from a statistical model. It refers to the sum of the deviations around the regression line, which provides an explanation for the difference between the theoretical value of the model and the actual observed results.

Figure 4: OE relationship between Direct Activity Costs and CAI Activity Costs



A4.4.6 **Figure 5** below provides an illustration of how the OE was calibrated and the relationship to how it is applied. The next section provides further explanation.

Figure 5: Calibration and application of the Opex Escalator



5 How we apply the OE to determine CAI Activity Allowances

A4.5.1 In order to allow us to use the OE as intended, i.e. to automatically determine the efficient CAI Activity Allowances associated with directly assessed efficient Direct Activity Allowances, we are required to make a number of assumptions, including those listed below. This is because, to use the OE as intended, we need the results of the regression analysis to give us single point estimates of efficient CAI Activity Costs, whereas without making the assumptions below the regression analysis only tells us that the efficient CAI Activity Costs are

likely to fall within a wide confidence range[27]. Similar assumptions as those listed below are required for all Volume Driver mechanisms, and for the OE mechanism to be operable will need to be made irrespective of the how Contractor Indirects are treated for calibration purposes. The assumptions we have applied include:

1. MEAV and Direct Activity Costs are uncorrelated, meaning that any additional Direct Activity Costs will not change MEAV. This is an imperfect assumption as clearly, particularly in the case of load related projects, where a licensee is adding new assets to its network, the investment will increase MEAV.

2. The error term is zero. While this is a reasonable assumption to make across a large portfolio of projects (as positive value errors will cancel out negative value errors) it can be very significant when considering individual projects.

3. The data on which the OE was calibrated was representative of the relationship between efficient Direct Activity Costs and efficient CAI Costs.

4. The assessed Direct Activity Allowances to which the OE is applied are efficient.

5. All data has been robustly quality assured and is free from any material errors, inaccuracies, and inconsistencies.

6. Datasets used for calibration and application are 100% identical in how they are constituted.

A4.5.2 Collectively, the above assumptions, although imperfect, allow us to use the OE to calculate a single efficient CAI Activity Allowance for any efficient Direct Activity Allowance that we set through our direct costs assessment. The fact that the above assumptions are imperfect means that the true efficient CAI Activity Allowance value actually sits within an uncertainty range of our OE

[27] For example without making the assumptions, using the results of the regression analysis on a given project might tell us that we have 95% confidence that the efficient CAI Activity Cost are between £10m and £50m. This is not useful for setting allowances. Making the assumptions enables us to narrow this range down to a single point estimate of e.g. £30m and to set the associated CAI Activity Allowances accordingly.

estimated value. The uncertainty range is represented by 'X' in **Equation 3**, below.

Equation 3

$$[True\ Efficient\ CAI\ Activity\ Costs] = [OE\ Derived\ CAI\ Activity\ Allowance] \pm X$$

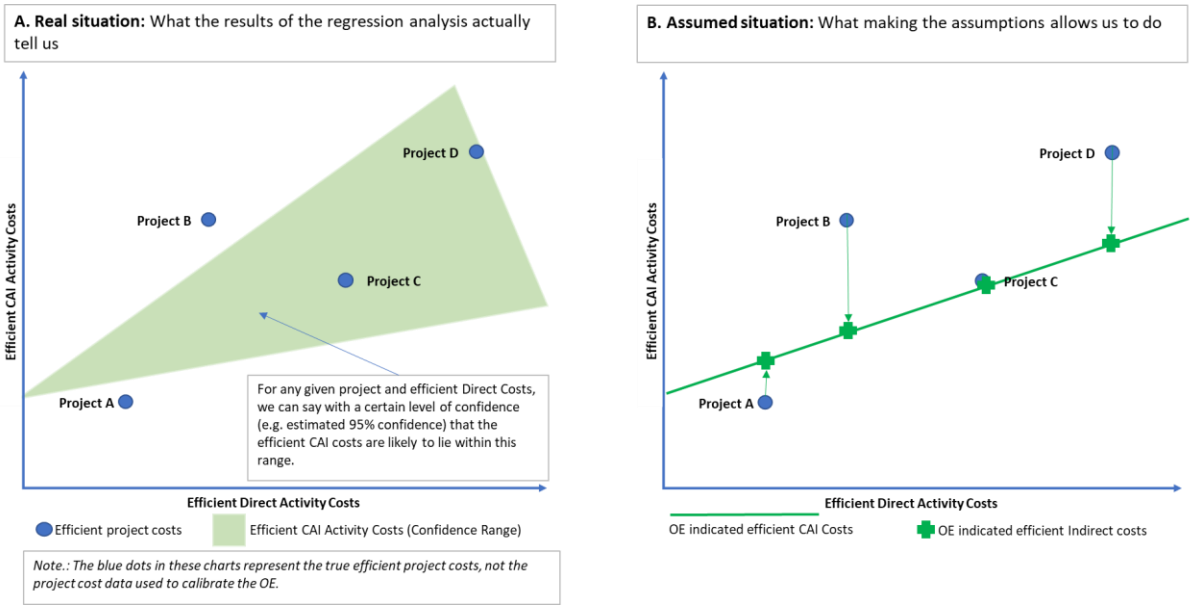
A4.5.3 If we only apply the OE to individual projects or to a small subset of an ETO's RIIO-ET2 project portfolio then in aggregate we would expect the uncertainty range (±X) around the OE Derived CAI Activity Allowances to be large, and therefore for the OE Derived CAI Activity Allowance to be significantly above or below the True Efficient CAI Costs. However, as we apply the OE to more and more projects, we would expect the uncertainty range (±X) to decrease, as positive values will offset negative ones, and the CAI Activity Allowances will in aggregate be closer to the true efficient value.

A4.5.4 This is the fundamental concept that allows us to use the OE in RIIO-ET2. However, even though increasing the number of projects that we apply the OE to should in aggregate bring us closer to the true efficient value, because we cannot accurately estimate the combined impact of all of the assumptions we applied, we cannot reliably say how close to the true efficient cost we have come. We are collecting data through the RIIO-ET2 annual reporting process[28] that will help us better understand the relationship between efficient CAI Activity Costs and efficient Direct Activity Costs. This data will help inform our allowance setting and adjustment mechanisms in the next price control.

A4.5.5 The combined effect of making the above assumptions is illustrated in **Figure 6** below. Without making these assumptions, the regression analysis only indicates that the True Efficient Costs on a given project are likely to lie within a wide confidence range (Figure 6: Chart A). Making the assumptions allows us to narrow the efficient costs estimates down to a single line (Figure 6: Chart B). However, although the making of these assumptions gives regression outputs that can be used in a Volume Driver mechanism, such as the OE, it does not change the fact that the situation as illustrated in Chart A is the reality.

[28] For reference only - the document is located here: Direction to Modify the Regulatory Reporting Pack (version 2.3) and Regulatory Instructions and Guidance (version 1.7) May 2023 | Ofgem

Figure 6: Illustration of the combined effect of making the assumptions that are necessary to implement Volume Driver mechanisms such as the OE



A4.5.6 As is the case with other Volume Driver mechanisms, the necessity to make the above assumptions means that the OE mechanism is inevitably imprecise. If achieving maximum precision when aligning the allowance uplift with the level of efficient cost incurred was the paramount consideration, we would not introduce any Volume Driver mechanisms, and would instead, individually assess every situation where allowance adjustments are needed. The impreciseness of the Volume Driver mechanism is accepted due to the considered net benefit of the trade-off of impreciseness against the benefits that the mechanism provides. In the case of the OE mechanism, the specific benefits include that it avoids the need to individually assess CAI Activity Costs on individual re-opener applications (and the associated time and resource implications), and that it provides certainty to ETOs on the levels of CAI Activity funding they will receive for any additional Direct Activity Allowances.

A4.5.7 Additionally, the downside of having an imprecise mechanism are mitigated to a large extent by the risk mitigation and sharing mechanisms contained in the RIIO price control framework as whole. These include the Totex Incentive Mechanism (TIM), and the Return Adjustment Mechanisms (RAM), as well as the inclusion of specific allowances for risk in baseline and re-openers. While not specifically designed to mitigate the effect of needing to make the assumptions necessary for operational Volume Drivers, they are designed to reflect and mitigate the uncertainty inherent in ex ante allowances and expenditure across the RIIO price controls.

Appendix 5 – What does systematic under-funding look like?

Questions

Q10 Do you agree with our explanation of what we mean by systematic under-funding in this context?

Q11 Do you agree with the two methods (direct and indirect) for testing for systematic under-funding? Do you agree that the direct method is not possible in the case of the OE?

Q12 Do you agree that it is appropriate to consider RIIO-ET1 Volume Driver mechanisms as examples of Volume Driver mechanisms that have worked as intended (i.e. the allowances set through them were within acceptable bounds)?

1 Introduction

A5.1.1 In our October 2023 OE Decision (paragraphs 2.1 to 2.18) we explained that for any Volume Driver mechanism, such as the Opex Escalator, there are a number of uncertain factors that, on a project-by-project basis, mean the funding awarded to an ETO on a given project is likely to be higher or lower than the efficient project costs. However, in order to design operable mechanisms, we need to make the assumption that, across the portfolio of projects funded through the Volume Driver mechanism, the cumulative effect of these factors will cancel each other out and overall the funding will be at an efficient level.

A5.1.2 When we calibrated the OE we were aware of the fact that, when submitting the data used for calibration, the ETOs were unable to separate historical Contractor Indirects from Direct Costs in some cases. We were also aware that the effect of this would, if all other uncertain factors are ignored, be to increase the likelihood of overall under-funding.

A5.1.3 ETOs have stated that, as a result of this, the operation of the OE "… will lead to a **material** and **systematic** underfunding of **all projects** subject to re-opener applications. This leads to an estimated £300m shortfall in funding across all TOs."[29] Although ETOs claim that underfunding will occur on "all projects", in order to demonstrate that systematic underfunding is likely to have occurred, we do not think it is necessary to set the bar as high as ETOs

[29] ETO Joint Letter to Ofgem, 18 May 2023: https://www.ofgem.gov.uk/sites/default/files/2023-06/SSENT-SPEN-NGET_Opex%20Escalator_Letter_Ofgem_May23_0.pdf

expect the final outcome to be. We are therefore proposing that we only need to see an over-spend on 80% of relevant projects to have a reasonable expectation that systematic under-funding due to the impact of specific factors (in this case, we assume it to be the treatment of Contractor Indirects in the calibration of the OE compared to their treatment when applying the OE) is likely to have occurred.

A5.1.4 The 80% threshold is to be used as an initial verification step to help us decide whether it is worthwhile expending resources to confirm whether Embedded CIs has led to material and systematic under-funding and to assess the magnitude of any under-funding.

A5.1.5 The remainder of this appendix provides explanation to stakeholders of what we mean by "systematic" to assist respondents in providing fully informed views on our proposals.

2 What do we mean by a systematic effect

A5.2.1 A systematic effect is the opposite of a random effect. Therefore, to understand what we mean by systematic effect we need to begin by explaining what a random effect is.

A5.2.2 The basic difference between random and systematic effects is best illustrated through a simple example of a coin toss experiment: if we toss a fair coin then we would expect there to be a 50% chance of it coming up head, and a 50% chance of it coming up tails. If we toss once it, it may come up heads or it may come up tails. If we toss it three times then there is a good chance that it will come up with any combination of heads and tails. For such a small number of tosses, we wouldn't be surprised to see either all heads or all tails. The more times we flip the coin the less likely it becomes that we have all, or even most, come up either heads or tails. If we toss the coin enough times then, provided the coin is fair, we will see the proportion of heads and tails very close to 50% each. This is because the coin toss is a random effect. If, however, we flip the coin 1,000 times and see that 90% of the time the coin comes up heads. Then it is likely that there are some non-random, or "systematic effects" at play and there are external factors that may be influencing the outcome to move away from the result of heads or tails being equally likely for every coin toss. Some of these factors may be under the control of those running the experiment (e.g. the coin might be weighted to make it more likely that it will come up heads), or may be outside the control of those running the experiment (e.g. force with which the coin is flipped).

A5.2.3 The lower the number of tosses (or samples), the higher the proportion of either heads or tails we would need to see to give us confidence that there is a non-random (systematic) effect influencing the outcome.

3 What is systematic under-funding?

A5.3.1 Under-funding or over-funding is not necessarily the same as under-spend or over-spend. The difference between spend and funding outcomes is efficiency.

Spend outcomes

A5.3.2 A licensee will have over-spent on a project if its actual outturn expenditure is higher than the project allowances, i.e. the allowances are not enough to cover the costs it has incurred. If project allowances are higher than outturn expenditure, then this is an under-spend. Therefore:

- **Over-spend** is where:
  [Actual Project Expenditure] – [Project Allowance] > 0, and
- **Under-spend** is where:
  [Actual Project Expenditure] – [Project Allowance] < 0.

Funding outcomes

A5.3.3 However, project allowances are not set to match a licensee's project expenditure (forecast provided in advance or outturn upon project completion). They are set to reflect the amount we would expect an efficient licensee to spend on a given project. If project allowances are less than the efficient project expenditure, then we have an under-funding scenario. Therefore;

- **Under-funding** is where:
  [Efficient Project Expenditure] – [Project Allowance] > 0, and
- **Over-funding** is where:
  [Efficient Project Expenditure] – [Project Allowance] < 0.

Volume driver allowances

A5.3.4 Where allowances are provided through a Volume Driver mechanism, such as the OE, we do not seek to set allowances at the efficient level for every individual project. Instead the mechanism is calibrated such that a rate is set to reflect the efficient level for projects on average (e.g. average unit cost). This assumes that some (or maybe all projects) funded through the Volume Driver will be either under-funded or over-funded, but in aggregate, across the full project portfolio, allowances will be sufficiently close to the efficient level when observed across the price control period.

A5.3.5 We explained in our October 2023 OE Decision (paragraph 2.12) that for all Volume Driver mechanisms, in order to have a usable mechanism, we need to make a number of assumptions. These assumptions are necessary as there are numerous factors that, we cannot control for when setting the Volume Driver unit rate, and that if considered individually, make it very likely that on a project-by-project basis we will end up with either under-funding or over-funding. While individually, the effect of the factors necessitating the assumptions are likely to be systematic, the **over-arching assumption** that we make, is that the aggregate effect of all the factors will be random.

Allowances set through the OE

A5.3.6 We explain in paragraphs 3.6 of the main document that the ETOs have produced analysis in support of their view that a systematic effect driven by one factor, i.e. treatment of CIs when the OE was calibrated, may result in a material under-funding for relevant projects across the RIIO-ET2 period.

A5.3.7 We concur that, if considered in isolation, there is likely to be a systematic effect related to the treatment of CIs in calibrating the OE. However, for this to lead to *systematic* under-funding, it is necessary to demonstrate that our over-arching assumption of aggregate random effect is incorrect. As with the coin toss example noted above, this means it is necessary for ETOs to demonstrate an outcome in which a sufficiently large proportion of relevant projects have been under-funded across the RIIO-ET2 period. The smaller the sample size (number of projects) the larger the proportion of under-funded projects required to demonstrate an over-all systematic effect with sufficient confidence.

4 How to test whether there is systematic under-funding?

A5.4.1 There are two possible methods of testing whether or not a material systematic effect has been present:

1. Recalibration or direct method, or
2. Statistical or indirect method.

Recalibration method (direct method)

A5.4.2 The first method would be to identify the factors thought to be causing a systematic effect, to adjust the base data accordingly, to re-run the modelling, and then compare the results against the originally modelled results.

A5.4.3 In the case of the OE mechanism, this would mean adjusting the historical project data used for calibrating the OE so that CIs are reallocated from Direct Costs to Indirect Costs, in accordance with the definitions, and to then re-run the calibration exercise. Any difference between the re-run OE values and the current OE values would be due to the systematic effect of CI treatment. We would then need to judge, given that there are other uncertainty factors, whether any systematic effect is material enough to justify any adjustment to allowances awarded to ETOs through the OE mechanism.

A5.4.4 Unfortunately, it is not possible to use this method, as ETOs have confirmed that they are unable to reliably determine the value of CI costs in the data used for calibration.

Statistical method (indirect method)

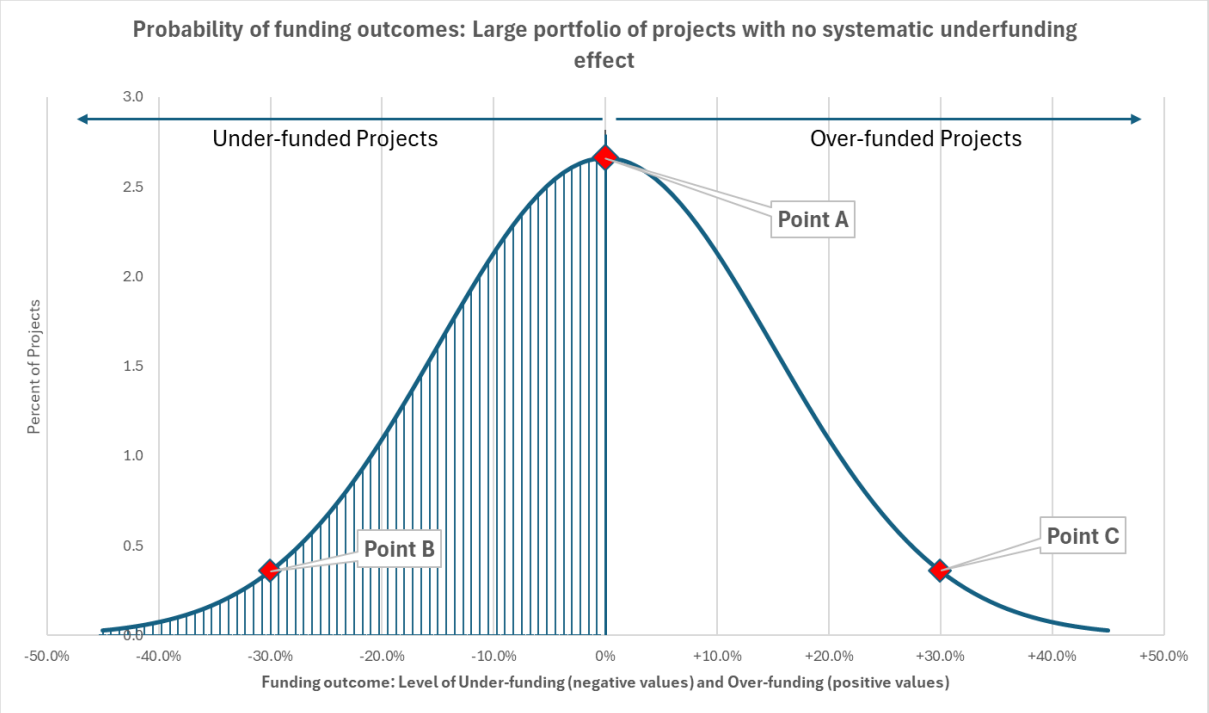
A5.4.5 The second method is to look at the funding outcomes on the projects that have been funded through the OE and assess whether, as a whole, the dataset of projects bears the statistical characteristics of dataset of projects in which systematic under-funding has occurred.

A5.4.6 This approach does not attribute any systematic effect to individual factors, and therefore, in an ideal world, in order to determine whether our treatment of CIs in the OE calibration has led to material and systematic under-funding, a combination of both the direct and indirect methods would be preferred.

A5.4.7 The remainder of this appendix explains the second method.

5 Systematic underfunding for a large number of projects

Figure 7



A5.5.1 If we have a very large number of projects, and if there is no overall systematic effect, then we would expect the funding outcomes to be distributed on a bell-curve (normal distribution), similar to as is illustrated in Figure 7, above.

A5.5.2 The curve tells us the percentage of projects that we would expect to have certain levels of over-funding or under-funding. For example, for this illustrative case, we see that:

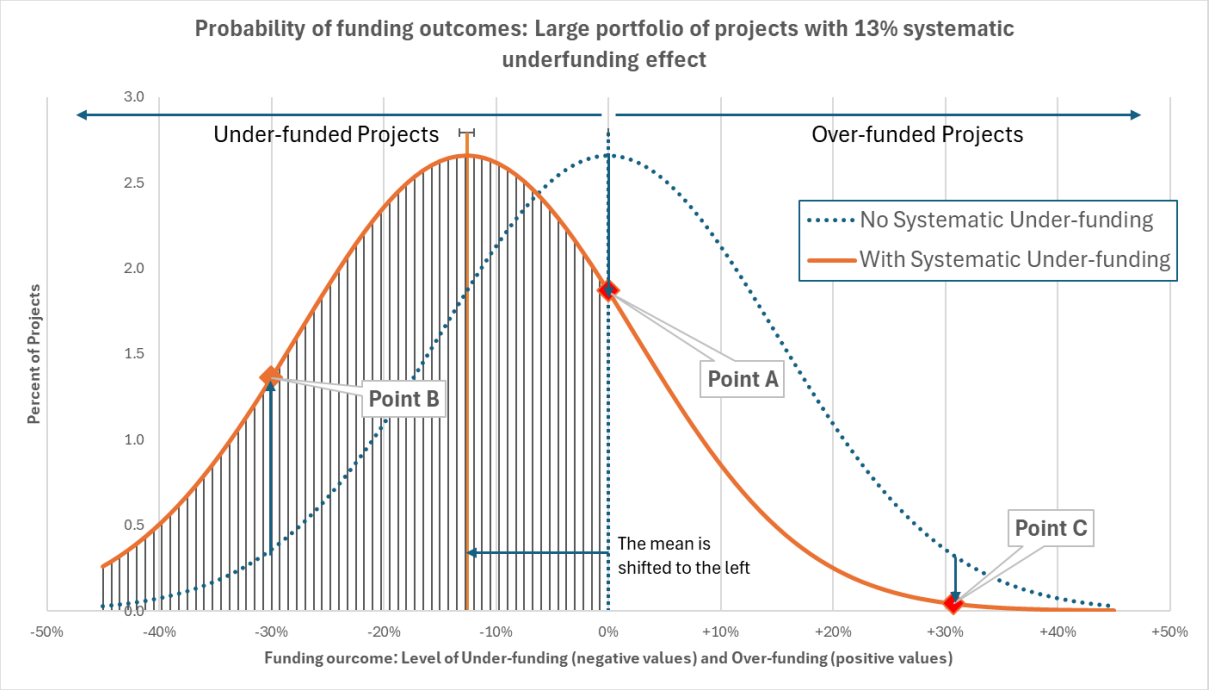
- at Point A: we expect that around 2.6% of projects to be 0% over-funded/under-funded, i.e. 2.6% of the projects are efficiently funded, meaning that the allowance set through the Volume Driver were equal to efficient expenditure level.
- at Point B: we expect that around 0.4% of projects will be under-funded by 30%, i.e. the allowances set through the Volume Driver are 30% less than the level of efficient expenditure.
- at Point C: we expect that around 0.4% of projects will be over-funded by 30%, i.e. the allowances set through the Volume Driver are 30% more than the level of efficient expenditure.

A5.5.3 Because there is no systematic effect in this example, the curve is symmetric around the 0% mark and therefore Point C mirrors Point B. If we consider Points A, B, and C combined then we find that for the 3.4% (= 2.6% + 0.4% + 0.4%) of projects covered by these three points, that in aggregate the funding outcome is zero:

$$= \quad (2.6\% \times 0\% = 0\%)_{\text{efficient funding}} \\ - (0.4\% \times 30\% = 0.12\%)_{\text{under-funding}} \\ + (0.4\% \times 30\% = 0.12\%)_{\text{over-funding}}$$

We can repeat this for all points on the curve, and because the curve is symmetric around the zero value, i.e. the hatched area under the curve (representing under-funded projects) is the same size as the unhatched area (representing over-funding). This means that the overall result, for all projects summed together, will be zero, i.e. overall efficient funding.

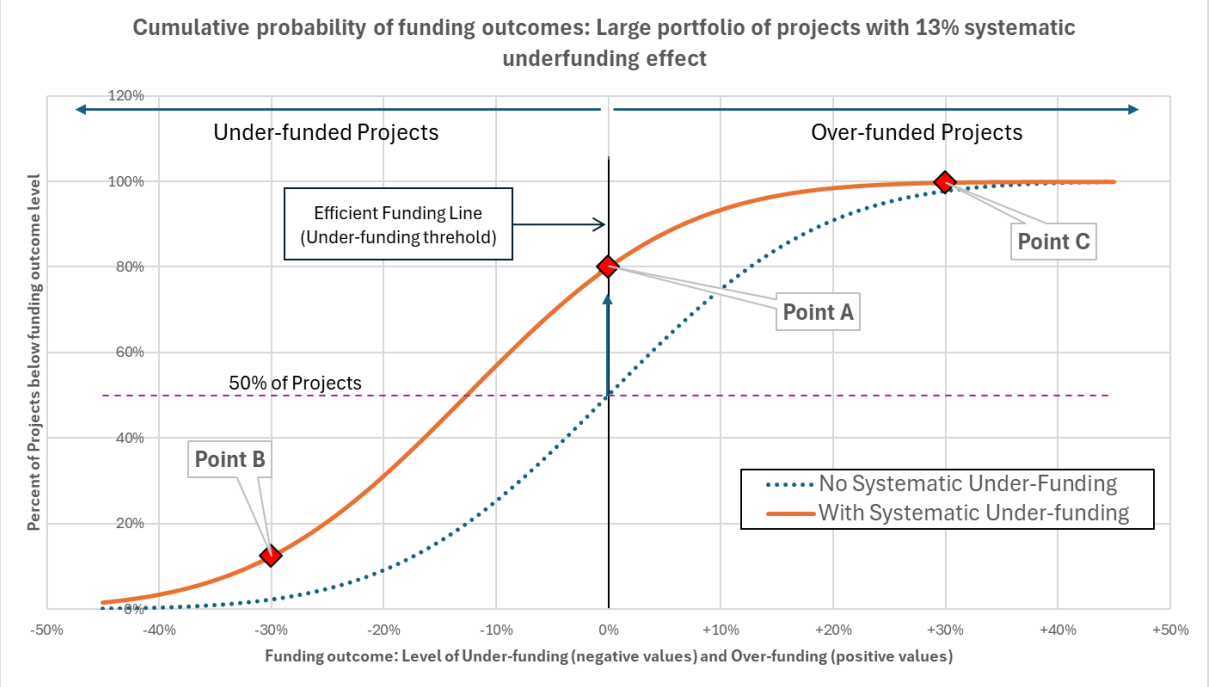
Figure 8



A5.5.4 If we consider the same illustrative case, but this time introduce a systematic under-funding effect then we can see (as illustrated in Figure 8 above) that this changes the likelihood of a project being under-funded. The mean is shifted to the left so that the number of under-funded projects (the hatched area) is now greater than the number of over-funded projects (the unhatched area). This means that the overall result, for all projects summed together, will be less than zero, i.e. overall under-funding.

A5.5.5 If we repeat the calculation in paragraph A5.5.3 above for the three data Points A, B, and C, instead of zero funding outcome, we get a value of -0.39% ([1.8% x 0%] – [1.4% x 30%] + [0.1% x 30%]) meaning that in aggregate, for these three sample data points we have an under-funding outcome of 0.39%.

Figure 9



A5.5.6 The overall impact of the systematic effect on the number of under-funded projects, for this example, is illustrated in Figure 9 above. Figure 9 is a cumulative probability curve, meaning that for any point we can tell, for a given funding outcome, the cumulative percentage of projects that we would expect to be funded at that level or lower.

A5.5.7 We have highlighted the same three points as in the previous illustrations, Points A, B, and C. We see that for the 13% shift due to the systematic under-funding effect that:

- at Point B: with no systematic under-funding effect, only a very small percentage of projects, around 2%, will be under-funded by 30% or more. But that the proportion increases to a more material 13% of projects when the systematic effect is considered.

- at Point C: the systematic effect only has a small impact. Nearly 100% of projects will be over-funded by less than 30%[30] in both the non-systematic and systematic under-funding cases.
- at Point A: the curves cross the Efficient Funding Line. This is the threshold where we find the total number of projects that are under-funded. We see that, in this example, the systematic effect increases the number of projects under-funded from 50% to around 80%.

A5.5.8 This is useful as it suggests to us that if we see a large dataset of projects funded through a Volume Driver mechanism, and 80% of the projects have been under-funded, then it is likely that some factor(s) (which may or may not be identifiable) are having a systematic impact on the funding provided through the Volume Driver mechanism.

6 Volume Driver mechanisms without systematic effect

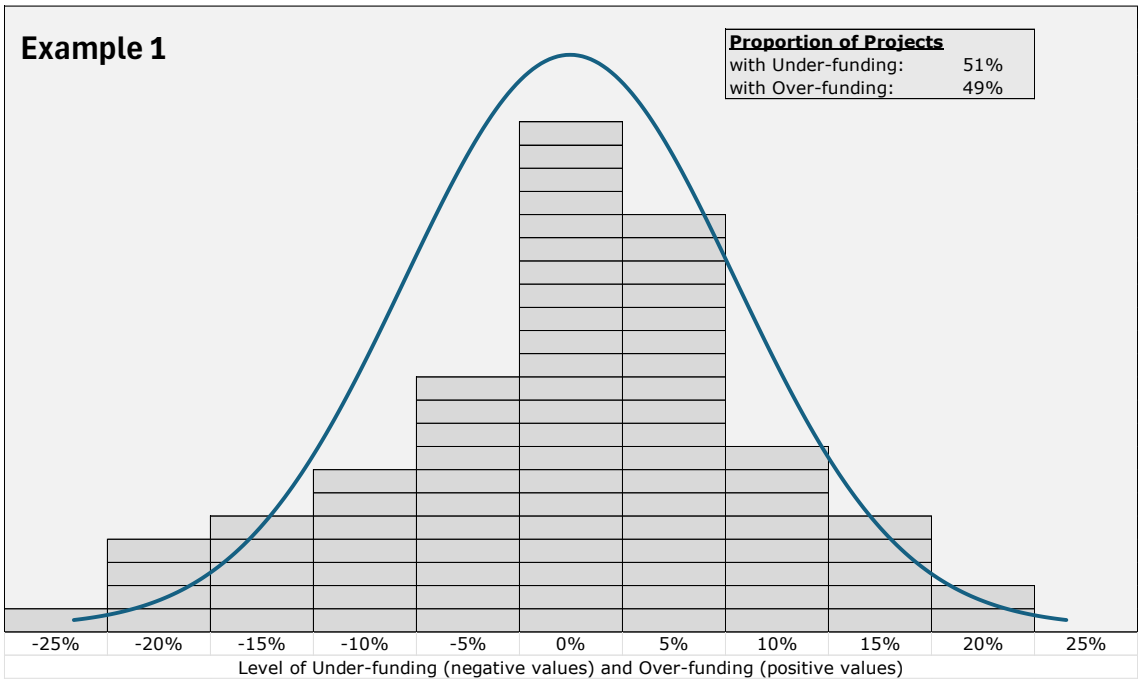
A5.6.1 Volume Driver mechanisms typically cover only quite a small number of projects. As we saw with the coin toss experiment above, the smaller the sample size, the more likely it is that the average outcome, will be very different from the expected average. Although Volume Driver mechanisms, such as the OE, are set based on an assumption that the funding outcome will be similar to the outcome we expect from a very large number of projects (as illustrated above), in reality the outcome is likely to be different[31].

A5.6.2 This assumes that, even for the small number of projects funded through the Volume Driver mechanism, that they will be distributed something like as illustrated in Figure 10 below (each grey box represents one of a sample of 100 individual projects), with approximately 50% of projects under-funded and approximately 50% of projects over-funded.

[30] This includes all under-funded projects (funding outcomes less than 0%), and all projects with over-funding between zero and 30%.
[31] We explained in our October 2023 MSIP decision, that although we expect Volume Driver mechanisms to often be less precise at setting allowances at efficient levels than direct assessment would be, we accept the expected imprecision because of the other benefits that Volume Drivers bring, such as simplicity and pace of operation, and the significantly lower resources required to implement them.

Figure 10

Volume Driver funding outcomes – No systematic effect: Example 1

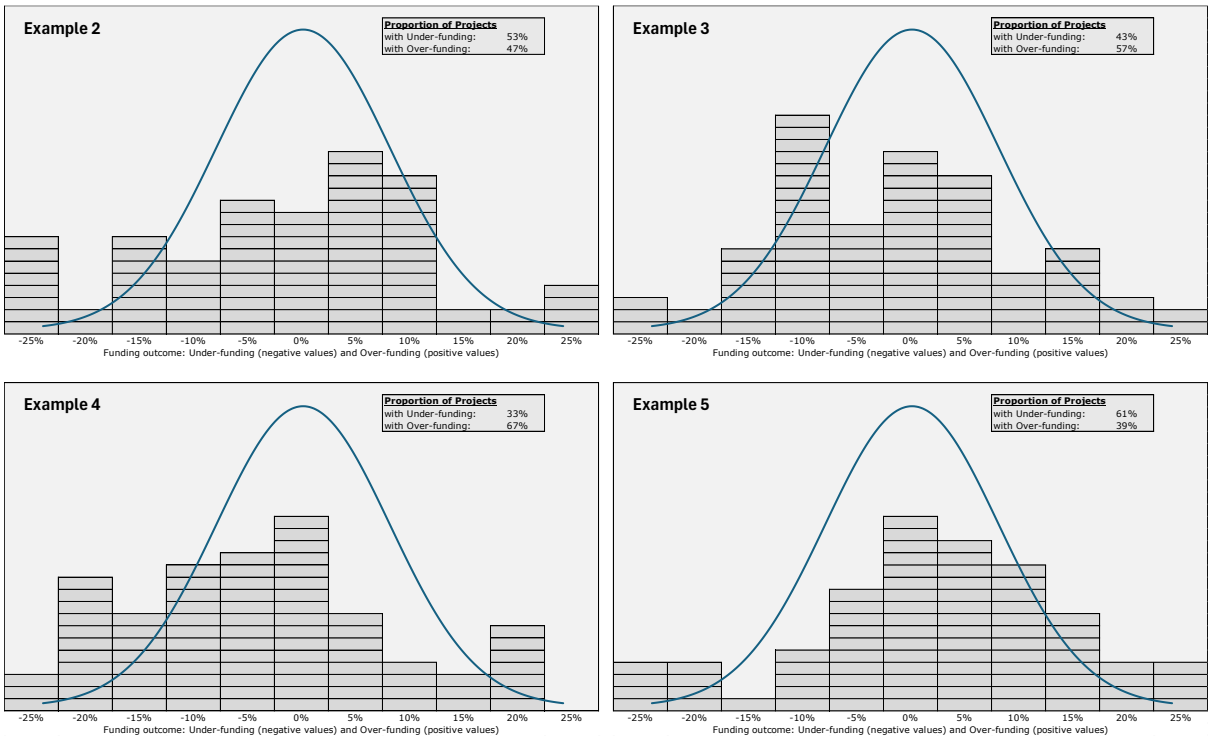


A5.6.3 The position of the projects in Figure 10 modelled in a way similar to the coin toss experiment above. With the coin toss experiment there are only two possible outcomes, heads or tails, with each outcome having a 50% chance of occurring. Whereas, with a Volume Driver, for any individual project, there are many possible funding outcomes. An individual project is more likely to have an outcome close to the centre, where the bell-curve peaks (i.e. close to zero), with an outcome at the far ends, i.e. large under-funding or large under-funding, much less likely.

A5.6.4 We saw with the coin toss experiment that a 50:50 chance of heads and tails does not mean that for a given number of coin tosses we expect exactly 50% to come up heads and 50% to come up tails. The same applies in the case of a Volume Driver mechanism. While a distribution of projects similar to the one illustrated in Figure 10 above is possible, it is no more or less likely than them being distributed similarly to any of those illustrated in Figure 11 below. For this illustrative case, we see that even without any systematic effect, an outcome of under-funding or over-funding on more than 60% of projects might not be unexpected.

Figure 11

Volume Driver funding outcomes – No systematic effect: Examples 2 to 5



7 Volume Drivers mechanisms with systematic under-funding

A5.7.1 As illustrated in Figure 11 above, observing a relatively large proportion of projects with under-funding or over-funding, may not be in itself particularly strong evidence for a systematic effect, and therefore should not be considered evidence that the Volume Driver mechanism has not worked as intended.

A5.7.2 Any adjustment that we make to ETOs' allowances under the proposed OE Review Mechanism will mean that consumers are paying the ETOs without any additional output delivery on the ETOs' part, and therefore the benefit of any doubt must lie with consumers. To be sure that the OE mechanism has not worked as intended, we would need to see that the number of under-funded projects is materially greater than what we would expect from a correctly working Volume Driver Mechanism.

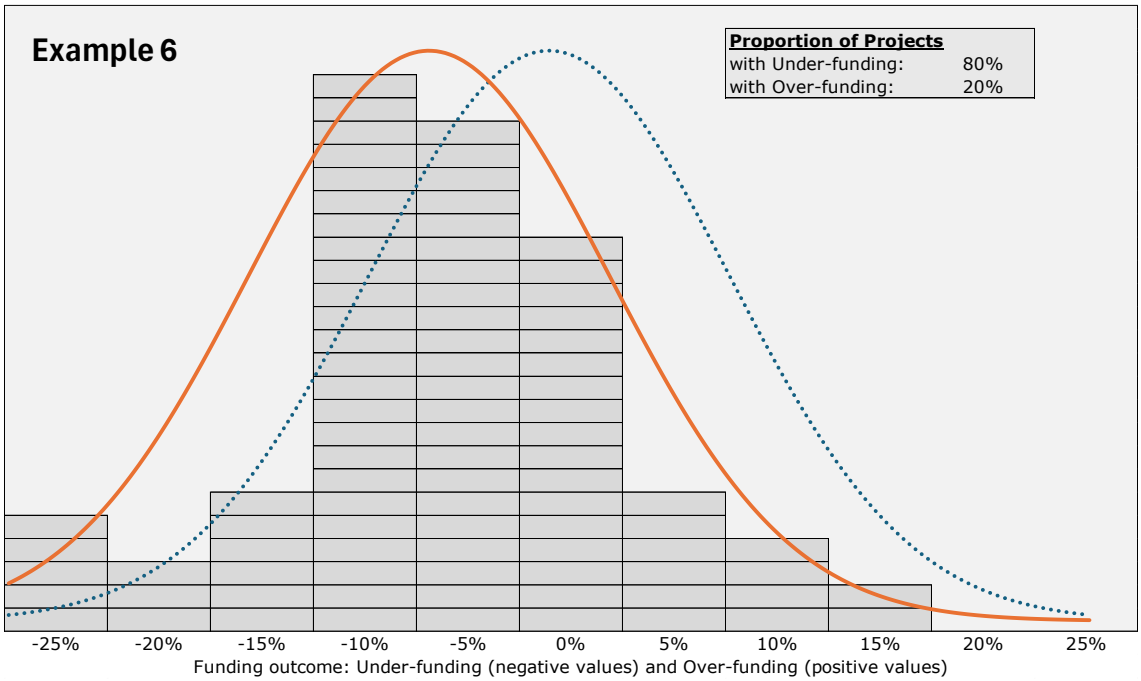
A5.7.3 While this proportion would not need to be as high at the 100% of projects that ETOs have suggested will be under-funded, it would need to be high enough to convince us beyond reasonable doubt that the outcome must be indicative of material and systematic under-funding effect.

A5.7.4 For example, we may consider a distribution of projects similar one illustrated in Figure 12 below, with 80% of projects under-funded, to be evidence of

systematic under-funding, as such a distribution would be unlikely without some systematic effect impacting the funding outcomes.

Figure 12

Volume Driver funding outcomes – With systematic effect: Example 6



8 Is the Opex Escalator different from other volume driver mechanisms?

A5.8.1 In general Volume Driver mechanisms are used to calculate allowances on a project as per the following generic formula:

$$[Project\ Allowances] = [Volume\ Measure] \times [Unit\ Rate]$$

For most Volume Drivers, the volume measure is a measurable project output, for example Generation Connections Volume Driver has the MW of generation connected as the driver. While the operation of the OE mechanism is the same as most other Volume Driver mechanisms, it differs from other Volume Driver mechanisms in that, rather than being a project output, the volume measure is a financial input value, i.e. the Direct Cost Allowances for the project.

A5.8.2 The relevant question then is whether this difference means that we should expect the OE funding outcomes to differ from the outcomes for other Volume Driver mechanisms? Arguments can be made as to why we should expect OE to be both more widely and more tightly distributed then the funding outcomes on other Volume Driver mechanisms, for example:

- the fact that ETOs should have more control over the value of the Volume Measure than on other Volume Driver mechanisms, might suggest that OE funding outcomes should be more tightly distributed, while
- the wide range of projects with highly varied scopes might suggest that we would expect the funding outcomes to be more widely distributed.

A5.8.3 The OE was calibrated using similar techniques (such as regression analysis) as other Volume Driver mechanisms, and other Volume driver mechanisms utilised the data with some CIs embedded in Direct Activity Costs. Given these considerations, and the view that the RIIO-ET1 mechanisms worked as intended (i.e. the allowances set through them were within acceptable bounds), it is reasonable to expect the funding outcomes from a correctly operating OE mechanism to be similarly distributed.

9 What distribution do we see in reality on other volume driver mechanisms?

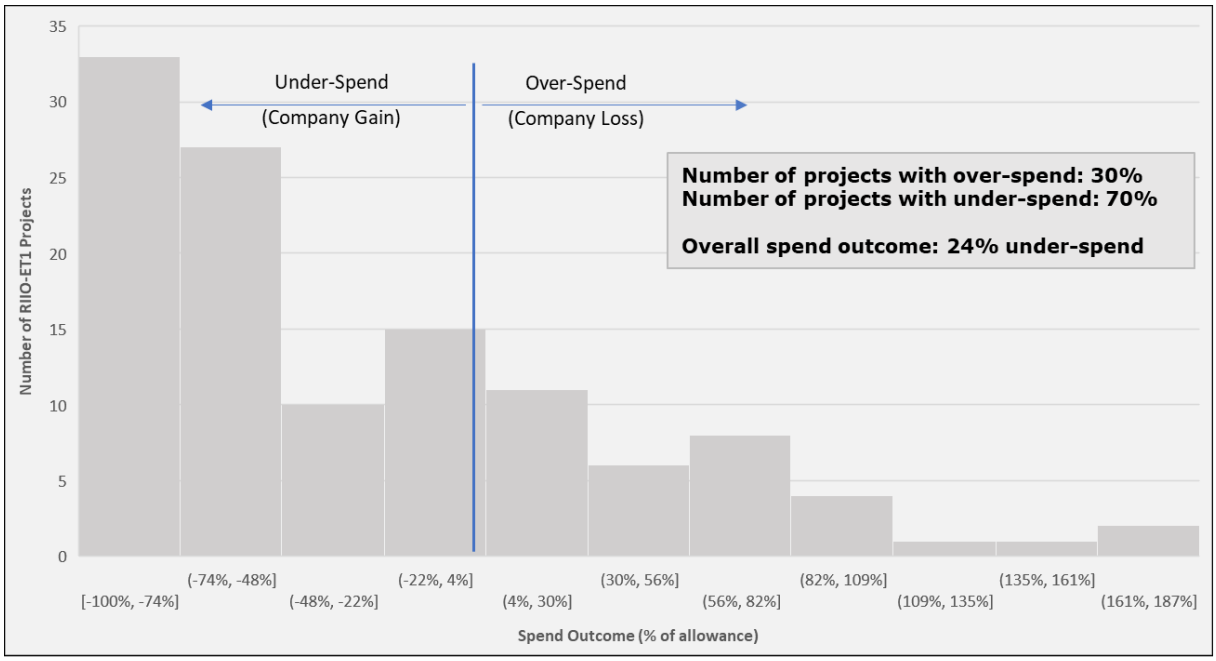
A5.9.1 We do not yet have outturn data from RIIO-ET2 Volume Driver Mechanisms. However, a number of Volume Driver mechanisms operated for ETOs in RIIO-ET1. We consider all these Volume Driver mechanisms to have broadly worked as their design intended across the relevant portfolio.[32] However, if we examine them on a project-by-project basis, we see a wide range of funding outcomes (as anticipated).

A5.9.2 We explain in Appendix 6 that we have carried out some analysis examining the distribution of RIIO-ET1 Volume Driver funding outcomes to help us validate the proposed OE Review Mechanism eligibility criteria thresholds. The distribution we see from an albeit limited sample of RIIO-ET1 Volume Driver projects (approx. 15% of projects) shows quite a wide distribution of over-spend and under-spend, with the majority of projects in this sample having outturn under-spend. This is illustrated in Figure 13 below.

[32] Please note that this is not an observation on the performance (cost vs adjusted allowance) of the volume driver mechanisms across the RIIO-1 period, but an observation of the operational utilisation of the mechanisms as a whole relative to the intent of their original design and calibration.

Figure 13

RIIO-ET1 Volume Driver spend outcomes



Appendix 6 – Determining threshold values for the materiality and systematic tests

Questions	
Q13	Do you agree with the overall threshold value assessment approach?
Q14	Do you agree with that the standard deviation and mean values that we have assumed to be appropriate for this purpose? If not then do you have evidence or proposals to allow us derive ones you would consider to be more appropriate?
Q15	Do you have any views on the simulation modelling (in the accompanying Excel file) that we have used to help validate the threshold values?

1 Introduction

A6.1.1 In Chapter 6 we explain that we are proposing to set a number of eligibility criteria to allow us to decide whether it would be good value to consumers to commit significant resources to a full review as part of the RIIO-ET2 closeout process.

A6.1.2 We are proposing three eligibility criteria to determine whether such a review can be triggered and potential adjustment value calculated. These are:

- Criterion 1: Adequacy of allowances
- Criterion 2: Materiality test
- Criterion 3: Systematic test

A6.1.3 The intention is that we will use data that should be readily available at the end of the price control to assess whether any ETOs have met the criteria and therefore whether we should proceed to full review. For the materiality and systematic tests we are proposing to set thresholds as follows:

- **Materiality test**: **Threshold value = 40%**
  An ETO's outturn total RIIO-ET2 CAI expenditure (both internal and external) on all OE Closeout Re-openers, must exceed the total CAI allowances provided through the OE by more than 40%.
- **Systematic test**: **Threshold value = 80%**
  An ETO must have overspent on more than 80% of the re-opener projects covered by the OE mechanism.

A6.1.4 We initially proposed the 15% materiality and 80% systematic thresholds in our October 2023 OE Decision. Our proposal of these thresholds was based on qualitative assessment of levels of underfunding that should be considered material, and on logical inference of the outcomes that we would expect in cases where material and systematic underfunding on the scale that ETOs

claimed to have occurred. We have now carried out some quantitative analysis using RIIO-ET1 Volume Driver data to help us verify whether the logically inferred threshold values are appropriate. Our analysis indicates that the 80% systematic test threshold is appropriate. However, the initial 15% materiality test threshold appears too low and we are therefore now proposing a threshold value of 40%.

2 Assessment approach

A6.2.1 To understand what material and systematic under-funding would look like we first look at the funding and spend outcomes we would expect from Volume Driver mechanisms that are working as intended, we then simulate the impact of Embedded CIs in the OE calibration to provide views to the outcomes we would expect for different proportions of Embedded CIs.

3 Expected funding and spend outcomes

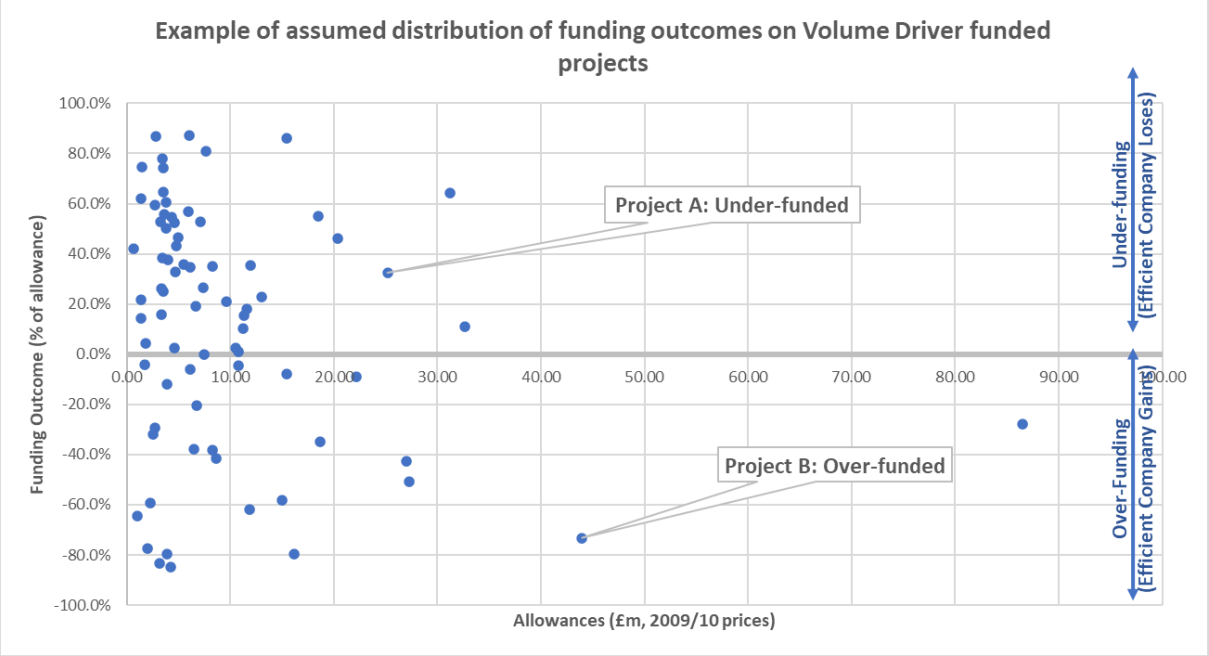
Expected funding outcomes from Volume Driver mechanisms

A6.3.1 We explain in Chapter 2 that the Opex Escalator is an example of a Volume Driver mechanism, and that for all Volume Driver mechanisms there are inherent levels of imprecision. We accept the imprecision inherent in Volume Drivers mechanisms due to the other benefits that they provide, including the speed and ease of operation, and clarity of funding for uncertain activities. There is no expectation that Volume Driver mechanisms will provide efficient levels of funding for individual projects – some projects will be over-funded and others will be under-funded. However, the assumption we make, is that when we apply the Volume Driver mechanism to all the relevant projects in a price control period (e.g. RIIO-ET2), the under-funded projects will balance out the over-funded ones, and in aggregate the funding awarded for the programme as a whole will be at the efficient level.

A6.3.2 Figure 14, below, illustrates what we assume the outcome will be from correctly operating Volume Driver mechanisms across all projects in a price control period. Each of the blue dots in Figure 14 represents an individual project. The project allowances for an individual project can be read from the horizontal axis and the funding outcome from the vertical axis. The funding outcome is the percent difference between the allowances an ETO received for a project through the Volume Driver and the efficient level of project costs (i.e. the level that allowances would have been set at had the project been individually assessed), as per Equation 4:

Equation 4
[Project funding outcome] = [Efficient cost of project] – [Volume Driver allowance]

Figure 14



A6.3.3 This means that any projects above the horizontal axis will be under-funded (i.e. efficient project cost is higher than Volume Driver allowances), and any projects below the horizontal axis will be over-funded (i.e. efficient project cost is lower than volume driver allowances). An efficient company with gain on over-funded projects and lose out on under-funded projects. For example, for the indicated projects A and B:

- **Project A is under-funded** because the Volume Driver allowances £25m and the funding outcome is 33%, giving an efficient project cost of approximately £33m (= £25m x 1.33). Project A is therefore under-funded by £8m (= £33m - £25m).
- **Project B is over-funded** because the Volume Driver allowances £44m and the funding outcome is 74%, giving an efficient project cost of approximately £63m (= £44m x 1.74). Project B is therefore over-funded by £19m (= £63m - £44m).

A6.3.4 If we calculate the over-funding or over-funding for all the projects illustrated in Figure 14 we find that for all under-funded projects (those above the horizontal axis) the total under-funding is £146m and for all over-funded projects (those below the horizontal axis) the total level of over-funding is

£146m. The overall outcome is zero (efficient funding), meaning that an efficient company will break even.

Actual outcomes from Volume Driver mechanisms

A6.3.5 The situation illustrated in Figure 14 above is conceptual only. In reality it is not practical to carry out the full efficiency assessment of all individual projects falling under the volume driver mechanisms that would be necessary to accurately estimate the funding outcomes and to verify whether the overall outcome was as assumed when setting the Volume Driver mechanisms.

A6.3.6 However, although the situation illustrated in Figure 14 cannot be definitively verified, we can, based on statistical probabilities, say that it is very unlikely to be the actual outcome, with the actual outcome likely to be some level of either over-funding or under-funding. A major reason for this is that the number of projects covered by Volume Driver mechanisms is relatively small, and almost certainly not large enough to allow any firm conclusion to be drawn. We explain in Appendix 5 above why the number of projects covered by the Volume Drivers makes a difference to the conclusions we can draw in regard to the overall outcome.

A6.3.7 To help us get an insight into outcomes we might expect in reality, we have looked at RIIO-ET1 Volume Driver mechanisms. RIIO-ET1 had a number of Volume Driver mechanisms for funding generation and demand connection projects and for incremental wider works projects.

A6.3.8 Rather than looking at funding outcomes, however, we need to consider spend outcomes. In order to convert spend outcomes to funding outcomes, we would need to adjust them for any inefficiencies (see Appendix 5 for explanation). To do this would require us to individually efficiency assess each project. As it is not practical to do this, we need to assume for these purpose that the ETOs' RIIO-ET1 expenditure was efficient. This enables us to assume that under-spend/over-spend are equivalent to over-funding/under-funding, and to therefore to compare the RIIO-ET1 outturn against expected outcomes, as illustrated in Figure 14 above.

A6.3.9 Project spend outcome is calculated as follows:

Equation 5

[Project spend outcome] = [Outturn project expenditure] – [Volume Driver allowance]

where,

Equation 6

[Volume Driver allowance] = [Project output units delivered] x [Volume Driver unit cost]

A6.3.10 Due to the design and calibration features[33] of some RIIO-ET1 Volume Driver mechanisms it is not correct to use the Volume Driver unit cost as set in the licence for calculating project allowances, instead we need to calculate an 'inferred Volume Driver allowance' by using an 'Inferred Volume Driver unit cost', which is calculated as follows:

Equation 7

[Inferred Volume Driver unit cost] = [Total allowances for activity] ÷ [Total output units delivered]

where,

- Total allowances for activity: is the sum of the baseline allowances, for outputs delivered up to the minimum value, and allowance awarded through the Volume Driver mechanism, and
- Total outputs units delivered: is the total output units delivered for the baseline and Volume Driver allowances.

A6.3.11 As we are assuming that under-spend/over-spend are equivalent to over-funding/under-funding (see paragraph A6.3.8 above), we can calculate project funding outcomes for RIIO-ET1 as follows:

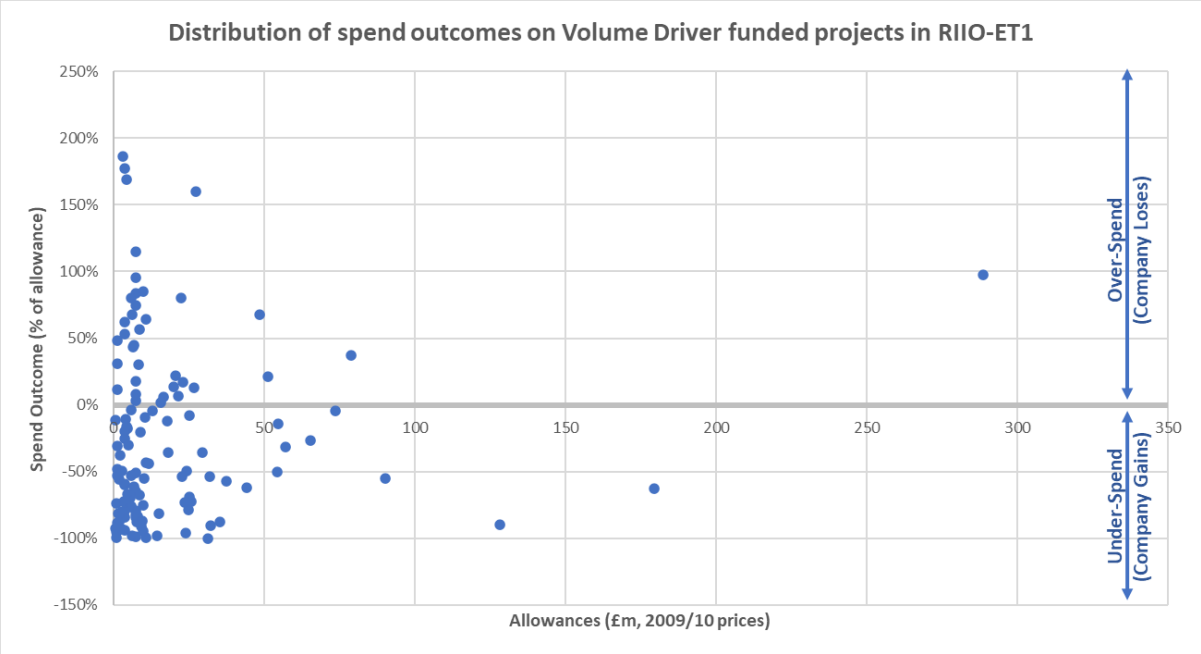
Equation 8

[Project funding outcome] = [Outturn project expenditure] – [Inferred Volume Driver allowance]

A6.3.12 From the RIIO-ET1 Volume driver data that we used we see that the project funding outcomes are distributed as illustrated in Figure 15 below.

[33] For example, some mechanisms only activate once a minimum threshold output units (e.g. total MW generation connected) have been delivered. Output units delivered up to the minimum value are funded through baseline allowances, with only any incremental units delivered above the minimum funded through the Volume Driver mechanism.

Figure 15



A6.3.13 It should be noted that Figure 15 above includes only 119 projects, which is approximately 15% of the total RIIO-ET1 portfolio of Volume Driver funded projects for the three ETOs combined. This is because the data we have from ETOs at present did not allow us to readily calculate the required values, and also because we have, for the time being at least, excluded apparent data outliers. We intend to update the analysis to include all RIIO-ET1 Volume Driver Project, and to assist us with this we would like ETOs to provide some additional data (see paragraph A6.5.4 below).

A6.3.14 Examining the data, it would appear to be indicative of systematic over-funding. However, there may be other reasons for this, such as potential material amounts of genuine efficiencies delivered by ETOs, or it could be due to the sample projects being non-representative of the full RIIO-ET1 Volume Driver project portfolio. We would not, without further investigation and evidence, consider this distribution to be evidence of systematic over-funding and seek to claw back any Volume Driver allowances from ETOs.

A6.3.15 In order to be fair to consumers we need to be sure that where we see the same outcome but in the opposite direction that we do not take this as definitive evidence of systematic under-funding and make sure that we properly investigate the reasons behind any under-spends before making any decision to award additional allowances to an ETO.

4 Simulating the impact on funding outcomes of Embedded CIs

Expected spend outcomes from the OE

A6.4.1 If we consider RIIO-ET1 Volume Driver mechanisms to be examples of Volume Driver mechanisms that have worked as intended, we can use the observed outcomes from them to help us form views on the outcomes we should expect from the OE mechanism if it worked correctly in RIIO-ET2 timescales, as well as expected outcome in cases of systematic under-funding for different levels of materiality.

A6.4.2 We have used the standard deviation from the spend outcomes that we have observed on the historical RIIO-ET1 projects to simulate the following for a randomly generated project portfolios:

- Historical project costs – these are used to simulate the impact on OE calibration for variable levels of Embedded CIs,
- Re-opener allowances
- Re-opener outturn costs

Using these simulations we were able to calculate the expected spend outcomes for different levels of Embedded CIs.

A6.4.3 We have published an Excel file with the simulations alongside this consultation and welcome stakeholders' views on it.

5 Results

A6.5.1 Figure 16 below illustrates the results from our simulations.

A6.5.2 In arriving at their £300m under-funding estimates, the ETOs estimated the average proportion of Embedded CIs in RIIO-ET1 to be in the range of 15-18 percent, with "15% contractor indirect costs [at]…the low-end range of the sample average" according to SHET[34]. We have shown this expected range on Figure 16 as a grey vertical bar.

A6.5.3 Our simulation suggests that if the ETOs assumptions are correct then both the materiality and the systematic test thresholds will be comfortably exceeded.

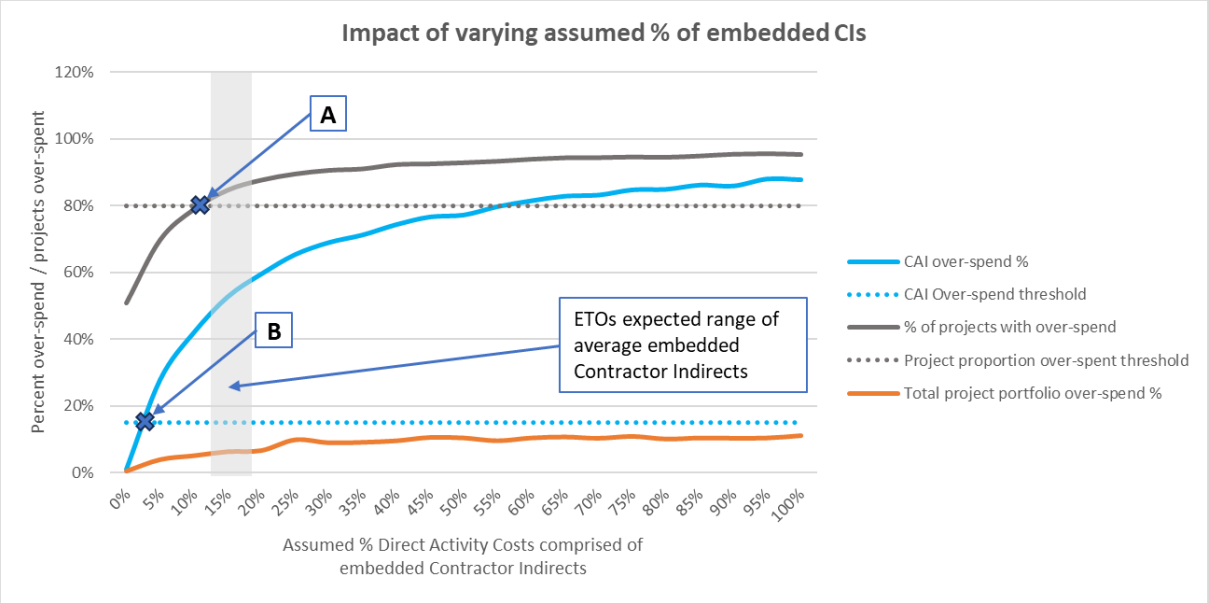
- Point A is the point at which the proposed 80% systematic test threshold is exceeded. This is at approximately 13% of Embedded CIs.

[34] SHET presentation to Ofgem: "RIIO-T2 Opex Escalator", 4 July 2023

- Point B is the point at which the originally proposed 15% materiality test threshold is exceeded. This is at approximately 4% of Embedded CIs.

Both Points A and B are below the ETOs lower end estimates of Embedded Contractor Indirects and significantly so in the case of Point B (materiality test threshold). We are therefore now proposing set the materiality test

Figure 16



A6.5.4 We intend to update the modelling to include all RIIO-ET1 Volume Driver Projects. In order to do this we are requesting that ETOs provide the necessary data as part of their consultation responses. We have published an Excel template alongside the consultation for ETOs to populate and return to us with their response.

Appendix 7 – Privacy notice on consultations

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem"). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

4. With whom we will be sharing your personal data

No external agencies.

5. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for six months after the consultation is closed.

6. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services

- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at https://ico.org.uk/, or telephone 0303 123 1113.

7. Your personal data will not be sent overseas.

8. Your personal data will not be used for any automated decision making.

9. Your personal data will be stored in a secure government IT system.

10. More information

For more information on how Ofgem processes your data, click on the link to our "ofgem privacy promise".