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RIIO-3 Draft Determinations for the Electricity Transmission, Gas Distribution, and Gas Transmission Sectors

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About Octopus

The Octopus Energy Group is the UK's largest domestic electricity supplier and a global leader in innovative smart tariffs and products that harness and reward consumer demand flexibility. With over half a million customers on smart tariffs and exponential growth, we are pioneering the future of energy. As the owner of Kraken, a platform that connects all parts of the energy system—from customer billing to the flexible management of renewable generation, energy storage, and consumer devices such as EVs, home batteries, and heat pumps—we are at the forefront of energy technology.

Key Recommendations

- Provide clarity on customer bills by modelling the entire impact on bills over the next 8-10 years, including various scenarios for the electrification of demand and, therefore, gas transmission and distribution prices
- Remove the proposed stepped TIM and implement rate of return: to reduce information symmetry, gaming opportunity, complex incentives, and unfair risk being placed on consumers.
- Reduce the WACC: to reflect lower risk from the centrally planned network
- Introduce downside-only incentives: preventing TOs from double-benefiting from an increased RAV
- Reduce the complex web of incentives and mechanisms to simplify the RIIO framework and minimise costs, e.g., SO: TO incentive, innovative delivery incentive, SIF, NARM.
- Implement x2 incentives to drive key outcomes: network utilisation and a constraint-based incentive, where TOs pay a share of constraint costs caused by planned work.
- Back-end load electricity network costs to a period where electricity demand is significantly higher and unit costs are lower.

Introduction

We welcome the opportunity to feed into the RII0-3 Draft Determinations for the Electricity Transmission, Gas Distribution, and Gas Transmission Sectors. The majority of our comments are directed towards the Electricity Transmission section; however, it is clear that further consideration of the long-term impacts of increased disconnections across the gas networks is needed.

The significant investment required across the RII0-3 framework comes at a time of customer strain, with bills expected to rise across sectors such as council tax and water. The FCA reported in 2024 that over 7 million (~14%) people felt “heavily burdened” by domestic bills and credit commitments. Unaffordable bills (already at breaking point) are increasingly impacting and threatening public and political support for the energy transition, renewables, and the required infrastructure, which is directly relevant to Ofgem’s net-zero statutory duty as well as its duty to protect consumers. It should not be ignored that 70% of the responses to the SSMC for RII0-3 came from those opposing new ET overhead lines. Nor that the Government’s recently published research highlighted how, when asked what benefits would occur from new electricity transmission infrastructure, cheaper bills scored lowest out of the benefits listed, with under half selecting “definitely/probably” and 40% selecting “definitely not/probably not”.

The overall approach to the price control framework must simplify the complexities layered on over RII0 1 and 2 and adopt a much more straightforward framework. This simplified framework would reduce the ability for networks to game the incentives, such as through information asymmetry, and deliver on key challenges such as: delivering network build on time, improving utilisation, minimizing constraints through operating/ scheduling outages, and ensuring basic reliability, at least costs to consumers.

The RII0-3 framework therefore has a key role in systemically incorporating smart, flexible approaches to increase network utilisation, reducing constraint costs through the on-time delivery of transmission infrastructure, and introducing competition in network delivery to reduce costs. The potential quadrupling of investment in expanding the grid will increase TOs RAV and is forecast to more than **double** price control revenues from £4.3bn in 2025/26 to **£11.3bn** by 2030/31.

These represent significant changes compared to RII0-2, which must be reflected in the RII0-3 structure. So far, the narrow focus on “what network investment is needed?” has resulted in the goalposts changing to overly reward TOs, whilst shielding them from any risk at the expense of customers. It has also led to even more complexity being introduced through changed or newly proposed incentives, whilst failing to centre at all on the question of “what can customers pay?”.

The RIIO-3 framework and RIIO-ED3 must be shaped to fund and deliver the grid for CP2030 with the least impact on customer bills as possible. To do so:

- 1. Provide clarity on customer bills by modelling the impact over the next 8-10 years**
 - 2. Re-balance the rewards and risks of RIIO, preventing endless upside to TOs at the expense of customers**
 - 3. Reduce and simplify incentives to deliver outcomes**
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1. Providing clarity on customer bills by modelling the impact over the next 8-10 years

Ofgem has not provided the energy sector with a clear understanding of how all of the investments and policy changes will impact the customer bill stack. This includes policy decisions, such as the largest investment in electricity transmission and distribution network infrastructure since the 1950s-70s, the increase in AR7 strike price caps, rising constraint costs, and additional costs such as the Warm Home Discount Expansion and nuclear RAB being levied on bills in 2025.

The current piecemeal approach to policy-making and bill assessments assumes that investments in one area will unlock cost reductions in another (i.e., network investment will lead to renewable generation savings). However, there is no clear understanding if or when this will be the case, and recent announcements, such as that of AR7 forecasted increases, indicate otherwise. It is therefore very concerning that there is no clarity from the regulator on the impact on customers of such price increases.

- Ofgem must carry out open-book modelling on yearly customer bill profiles (both domestic and non-domestic) for the next 8-10 years. This should include both electricity transmission and distribution investments, timing of these investments' recovery, key policy impacts such as AR7, as well as various scenarios for the electrification of demand and, therefore, gas transmission and distribution prices.
- The impact assessment must provide an evidence-based forecast of the likely impact of transmission project delays, justification, and alternatives to the near doubling of the upfront standing charge in the first year (from £45 → £80), and non-domestic bill profile.

2. Re-balance the rewards and risks of RIIO, preventing endless upside to TOs at the expense of customers

The potential quadrupling of investment in expanding the grid will increase TOs baseline RAV and more than **double** price control revenues from £4.3bn in 2025/26 to **£11.3bn** by 2030/31. This is supported by favourable financial conditions

to the TOs proposed, such as a proposed increase in the WACC, introducing semi-nominal WACC, and faster capitalisation of new non-ex ante assets - all of which require further justification or removal. This significant increase in revenue must, in turn, be reflected in the incentive structure.

Downside only delivery incentives: Investing in new infrastructure provides a significant upside to TOs baseline revenue; as such, there is already an incentive and benefit to delivering the required infrastructure and growing their RAV. It is therefore not in customers' interests to pay again for an incentive that rewards TOs for simply delivering a basic activity of their regulated role on time, when they are already benefiting from doing so. This double benefit is relevant to any investments that lead to a TOs RAV increasing, such as delivering CSNP and connections projects on time. However, there is a clear disadvantage and risk to customer costs from failing to do so. As such, to reflect the increase in baseline revenues TOs already will benefit from, Ofgem must:

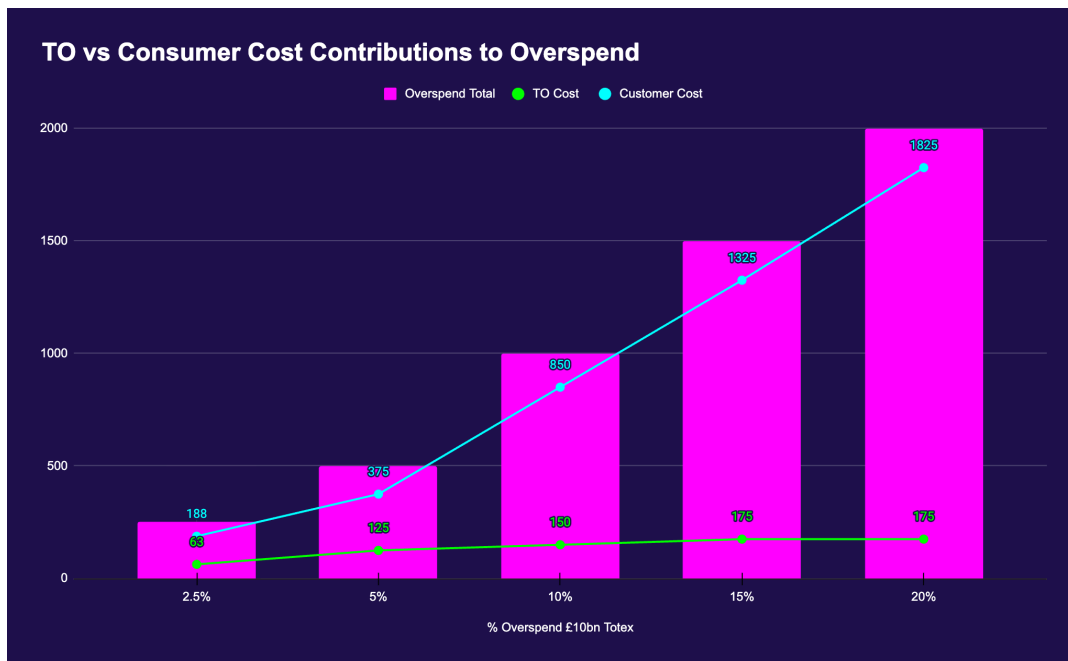
- Remove the double-benefit available in the incentive structure by introducing any delivery-related incentives, such as CSNP Delivery ODI-F and Connections Capacity ODI-F, with no upside and only downside penalties for late delivery

Remove the unfair and inappropriate Totex Incentive Mechanism

Ofgem has proposed a Stepped-TIM that introduces far greater risk to consumers than TOs for significant overspend. The purpose of the TIM, as stated by Ofgem, is “to ensure that TOs and consumers appropriately share the risk of overspending and share any cost efficiencies that can be achieved”. TOs have benefited from a consistently comfortable and favourable TIM regime for capex spend since 2008, when underspend and therefore upside was easily achievable for them, as highlighted by the fact that the percentage of allowance underspent by TOs 2008-2013 was 27% for load and 11% for non-load, and in 2014-2021 was 19% for load and 29% for non-load.

Introducing a stepped Totex incentive mechanism during a period of high investment to protect TOs from the risk of significant overspend reflects a clear example of moving the goal posts to ensure the RIIO regime results only in upside to TOs, at the expense of customers who shoulder the risk and additional costs. The likelihood of the equivalent benefits of significant underspend being captured by customers during a period of high investment is not only less likely given the scale of what investment is anticipated, but also now not as incentivised due to TOs sharing significantly less of the benefits.

This can be seen clearly through Ofgem's statement that considers the impact on TOs exclusively, and not on customers' ability to manage cost overruns: “This stepped approach will ensure that TOs have an exposure to cost overruns that is commensurate with the risks that they are able to manage”.



Furthermore, Ofgem's stepped TIM proposal highlights a wider point. It is unclear whether a TIM incentive, aimed at opex vs capex optimisation, remains a suitable mechanism during a period of high capex investment. It does not solve the issue of TO delivering infrastructure late, and incentivises delaying capex investment to other periods. This is in direct opposition to the proposed CSNP ODI-F, which, at best, adds complexity but also could lead to TOs balancing the trade-offs between these incentives to maximise their revenue. This risk compounds the already present risks from the TIM, such as TO gaming of ex-ante costs. Ofgem should therefore accept that with the proposal of a Stepped-TIM, such a mechanism is no longer applicable and should:

- Remove the complexity of ex ante costing, and move to a rate of return to deliver this scale of capex investment.

3. Reduce and simplify incentives to deliver outcomes

In addition to introducing only penalty-based incentives for TO delivery, the RIIO ecosystem of incentives should be reduced and simplified.

Incentives to drive outcomes: Networks should be measured and incentivised to deliver outcomes such as improving network utilisation, and a constraint-focused incentive.

1. Network utilisation: TOs should be incentivised to improve network utilisation, which can help reduce overall capex (driving down costs), inform strategic planning, accelerate connections, and optimise the use of the existing and new infrastructure. A network utilisation metric would also incentivise the systemic adoption of a variety of smart, flexible tools such as dynamic line rating, flexibility services, and coordinating with NESO on

initiatives such as constraint management markets. This incentive would focus on delivering many of the key outcomes for this period and so would replace the ineffective existing incentives, such as SO: TO optimisation, benefiting the framework further by reducing complexity.

2. Constraint-planning-incentive: There is currently no incentive for TOs to keep constraints down through their repair scheduling. Introducing TOs to pay a share of constraint costs caused by planned work would incentivise the minimisation of disruptions and constraints from scheduled maintenance. It is important that this incentive is sharp and drives the behaviour of TOs, e.g., by carrying the full cost of constraints where these are caused by their outage schedule.

Simplify and remove unnecessary incentives: RIIO is an extremely complicated and fragmented framework. Ofgem should remove some of the layers of complexity from unnecessary incentives and costs that have not or will not drive the outcomes required. These include SO: TO coordination incentive, Innovative Delivery Incentive, NARM, and the new infrastructure engagement survey. Furthermore, Ofgem should remove the SIF, which does not deliver value for money, and was recently reported as lacking transparency by Citizens Advice: “only half of completed [SIF] projects report on outcomes, largely because the reporting template doesn’t require them to compare results against original goals”.

Answer to questions

RIIO-3 Impact Assessment Questions

- *IAQ1. Do you agree with our approach to assessing the economic impacts of RIIO-3?*
- *IAQ2. What are your views on the appropriate approach to the evaluation of the economic impacts of RIIO-3?*
- *IAQ3. Do you agree with our approach to modelling the bill impacts of RIIO-3? Please provide any additional effects or alternative measures that you think would be appropriate.*

No, the approach to assessing the economic impacts of RIIO-3 is not sufficient. Clarity is needed from the regulator on the impact on customer bills of price increases not captured. The impact assessment highlights that network charges on typical domestic households for ET, GD, and GT will rise from £220 per annum today to around £274 in 2026, and to around £324 by 2031.

Ofgem must carry out open-book modelling on yearly customer bill profiles (both domestic and non-domestic) over the next 8-10 years, with the key possible cost variations highlighted or presented as alternative pathways. This should include

both electricity transmission and distribution investments, timing of these investments' recovery, key policy impacts such as AR7, as well as various scenarios for the electrification of demand and, therefore, gas transmission and distribution prices.

It must also include an evidence-based forecast of the likely impact of transmission project delays, justification, and alternatives to the near doubling of the upfront standing charge in the first year (from £45 → £80),

- **Explanation and justification of cost drivers:** Ofgem forecasts the transmission standing charge to increase from £45 to £80 in the first year of RII0-3, with further increases by the end of the 5 years. The reason why so much cost is loaded upfront needs to be understood, such as the contribution of whether it is faster depreciation of new gas infrastructure, reduced capitalisation of non ex ante new infrastructure (where the vast majority of the £80bn investment currently sits, with only £8bn in DD's ex ante totex), or a hangover from changes to asset lives catching up with TOs. It is clear from the revenue profile (screenshot in Image 2 below) that fast money is tripling from Y1 as a proportion of TO revenue, with more modest, although still significant, increases coming from returns and depreciation. Whether the decisions made on fast money are justified or should be spread more equitably through slow money recovery needs further evaluation, which can only be decided with the above modelling of total bill impact.
- **Use actual data on how delayed transmission projects are going to be to inform benefits calculations.** Ofgem highlights that the benefit of reducing constraint costs would be reduced by 50% if transmission projects key to CP2030 were delayed by 2 years. We estimate that over 50% of the CP2030-related transmission projects are already delayed (and that many of the projects that remain on time are ones that simply haven't yet started being developed). These delays range from 1-8 years, with the majority delayed by longer than 2 years. Ofgem should redo the impact assessment using realistic data on when the delayed-transmission infrastructure will be delivered. See image 1 below.

Image 1

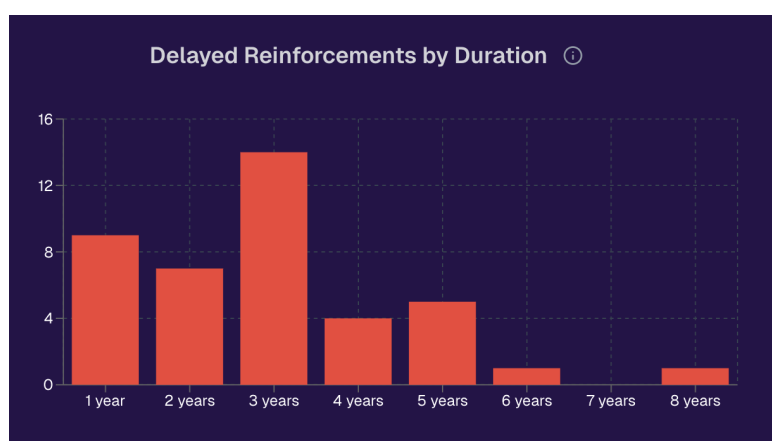
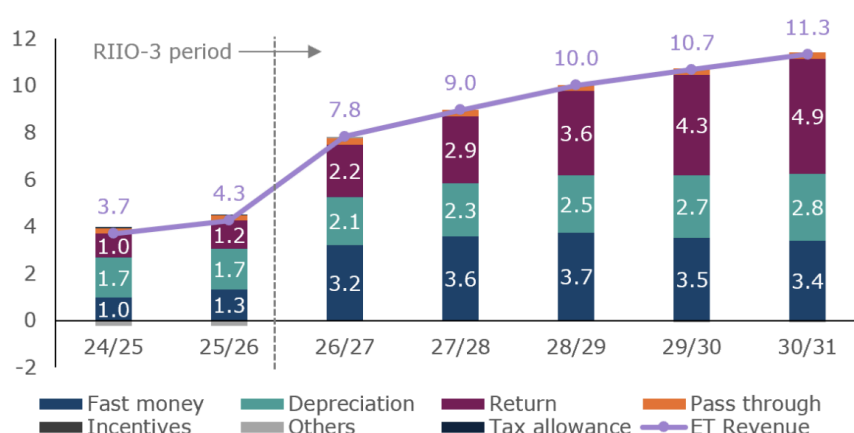


Image 2

Figure 1: Projected Price Control Revenue for RIIO-ET3, £bn, 2025/26 prices



Non-domestic cost assessment: Ofgem states that the IA document will “quantify bill impacts on energy consumers, including non-domestic consumers, comparing bill impacts to current levels”. However, later states:

“The effect of RIIO-3 varies significantly between non-domestic consumer types, both because there is a greater variation in the charging structure for different non-domestic consumers, and also because demand volumes vary so sharply. As a result, there is no equivalent simple calculation of the effect on a non-domestic consumer. What we can say as a starting point is that the net bill impact of RIIO-3, relative to a scenario where the RIIO-3 investment is delayed, should be relatively small for the majority of non-domestic consumers, assuming that the projected effects of avoiding balancing costs and reducing wholesale bills are achieved in the RIIO-3 period”.

We have already highlighted that the projected effects for balancing costs based on likely delayed infrastructure and wholesale benefits need to be justified and re-run, so non-domestic bills must also be calculated.

Furthermore, the lack of cost assessment on non-domestic bills is particularly concerning, given how the RIIO-3 process has already impacted non-domestic supplier pricing. Here, the NESO TNUOS charging forecast is used to enable suppliers to forecast network costs and set tariffs. The forecast was based on networks giving their costs in December 2024. Networks then gave data on how much allowance they will need to Ofgem for RIIO-3 in Q1 2025. The costs that Ofgem published in the RIIO-3 draft assessment are much higher than the NESO TNUOS forecast suppliers use for pricing. NESO previously signalled TNUOS charges by non-domestic customer type would increase by 49% 2026-2027; however, these customers face even greater increases in TNUOS less than 9 months from now. TNUOS charges will increase by an average of 70% and by as much as 109% in 2026-2027. Similarly, NESO forecasted a much smaller increase in transmission revenues of 22%, compared to the 87% now indicated.

This discrepancy means there is a possibility for under-recovery of costs - exposing suppliers to risks and customers to higher prices. **Ofgem must assess and clarify the impact of its proposals on the non-domestic sector.**

RIIO-3 Draft Determinations, ET Annex and Finance Annex

RIIO-3 Draft Determinations - ET Annex Questions

ETQ2. Do you agree with our proposed approaches to determining a TDD for CSNP-F Outputs and non-CSNP-F Outputs?

We agree that NESO's ODD is a sensible date to use to set the TDD for each project in the CSNP-F Outputs. In cases where NESO does not set an ODD, Ofgem proposes that the TO sets a TDD. This is inappropriate and is likely to lead to later delivery times to mitigate the risk of penalties and maximise the exposure to early delivery rewards. NESO should set all TDDs with the information provided by TOs.

ETQ5. Do you agree with our proposed shape and size of the CSNP-F ODI-F incentive?

No. This should be a penalty-only reward.

The potential quadrupling of investment in expanding the grid will increase TOs baseline RAV and more than **double** price control revenues from £4.3bn in 2025/26 to **£11.3bn** by 2030/31. This is supported by favourable financial conditions to the TOs proposed, such as a proposed increase in the WACC, introducing semi-nominal WACC, and faster capitalisation of new non-ex ante assets - all of which require further justification or removal. This significant increase in revenue must, in turn, be reflected in the incentive structure.

Downside only delivery incentives: Investing in new infrastructure provides a significant upside to TOs baseline revenue; as such, there is already an incentive and benefit to delivering the required infrastructure and growing their RAV. It is therefore not in customers' interests to pay again for an incentive that rewards TOs for simply delivering a basic activity of their regulated role on time, when they are already benefiting from doing so. This double benefit is relevant to any investments that lead to a TOs RAV increasing, such as delivering CSNP and connections projects on time. However, there is a clear disadvantage and risk to customer costs from failing to do so. As such, to reflect the increase in baseline revenues TOs already will benefit from, Ofgem must:

- Remove the double-benefit available in the incentive structure by introducing any delivery-related incentives, such as CSNP Delivery ODI-F and Connections Capacity ODI-F, with no upside and only downside penalties for late delivery

Penalties should be calibrated to the cost of constraints, as there are more critical CSNP projects to deliver on time with respect to constraint costs' impact on customers.

ETQ6. Which of the two proposals for the Connections Capacity ODI-F target setting methodology do you think is most appropriate and why?

Option 1 is preferred, focusing on selected Gate 2 Connection Reform projects. As above, this should be a downside-only incentive where TOs are penalised when the delivery is later than prescribed. This is a clear, connection-based link that is linked to the ongoing reforms and identified projects critical for CP2030.

We note the issue of the TOs setting their own target connection date, further demonstrating how an upside-incentive for delivering on time is inappropriate.

ETQ16. What are your views on our consultation position for the SO:TO incentive approach to BAU enhanced services in ET3?

SO: TO should be removed and replaced with an incentive for network utilisation to reduce and simplify the RIIO Framework.

Incentives to drive outcomes: Networks should be measured and incentivised to deliver outcomes such as improving network utilisation, mitigating disruptions and constraints from scheduled maintenance. For instance, TOs should be incentivised to improve network utilisation, which can help reduce overall capex spend (driving down costs), inform strategic planning, accelerate connections, and optimise the use of the existing and new infrastructure.

A network utilisation metric would also incentivise the systemic adoption of a variety of smart, flexible tools such as dynamic line rating, flexibility services, and

coordinating with NESO on initiatives such as constraint management markets. This incentive would focus on delivering many of the key outcomes for this period and so would replace the ineffective existing incentives, such as SO: TO optimisation, benefiting the framework further by reducing complexity. Two key incentives to introduce and replace the SO: TO incentive are:

- Network utilisation: TOs should be incentivised to improve network utilisation, which can help reduce overall capex (driving down costs), inform strategic planning, accelerate connections, and optimise the use of the existing and new infrastructure. A network utilisation metric would also incentivise the systemic adoption of a variety of smart, flexible tools such as dynamic line rating, flexibility services, and coordinating with NESO on initiatives such as constraint management markets. This incentive would focus on delivering many of the key outcomes for this period and so would replace the ineffective existing incentives, such as SO: TO optimisation, benefiting the framework further by reducing complexity.
- Constraint-planning-incentive: There is currently no incentive for TOs to keep constraints down through their repair scheduling. Introducing TOs to pay a share of constraint costs caused by planned work would incentivise the minimisation of disruptions and constraints from scheduled maintenance. It is important that this incentive is sharp and drives the behaviour of TOs, e.g., by carrying the full cost of constraints where these are caused by their outage schedule.

ETQ22. Do you agree with our proposal to introduce the CSNP Co-ordination LO? Agree

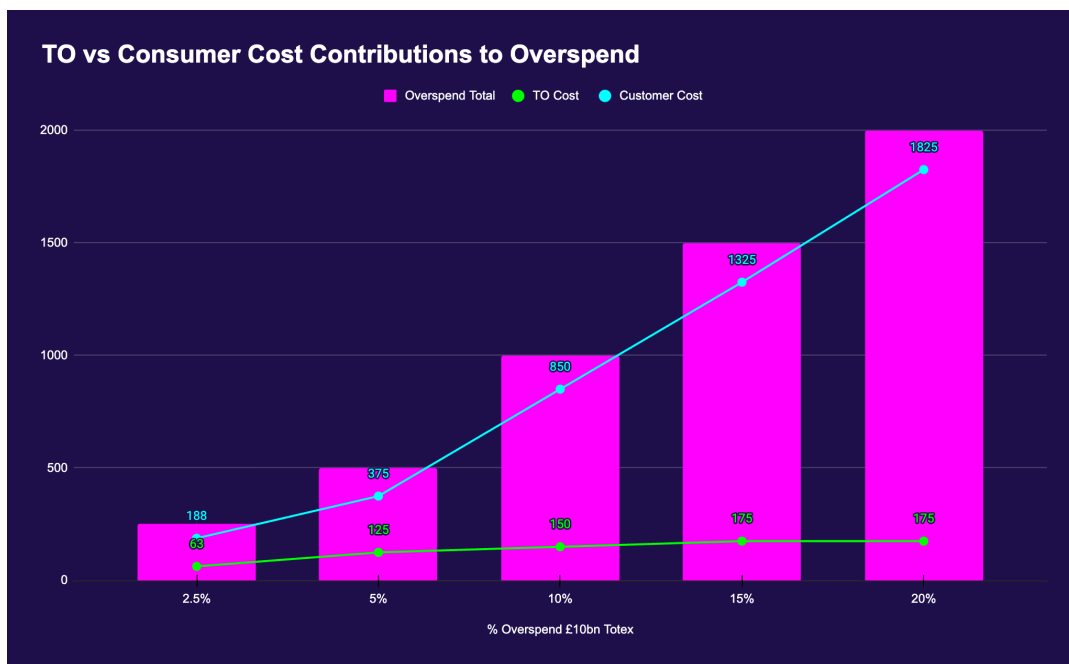
ETQ33. Do you agree with our proposal to apply the 'stepped TIM' to volume drivers as part of general totex?

No. Ofgem has proposed a Stepped-TIM that introduces far greater risk to consumers than TOs for significant overspend. The purpose of the TIM, as stated by Ofgem, is “to ensure that TOs and consumers appropriately share the risk of overspending and share any cost efficiencies that can be achieved”. TOs have benefited from a consistently comfortable and favourable TIM regime for capex spend since 2008, when underspend and therefore upside was easily achievable for them, as highlighted by the fact that the percentage of allowance underspent by TOs 2008-2013 was 27% for load and 11% for non-load, and in 2014-2021 was 19% for load and 29% for non-load.

Introducing a stepped Totex incentive mechanism during a period of high investment to protect TOs from the risk of significant overspend reflects a clear example of moving the goal posts to ensure the RIIO regime results only in upside to TOs, at the expense of customers who shoulder the risk and additional costs. The likelihood of the equivalent benefits of significant underspend being

captured by customers during a period of high investment is not only less likely given the scale of what investment is anticipated, but also now not as incentivised due to TOs sharing significantly less of the benefits.

This can be seen clearly through Ofgem's statement that considers the impact on TOs exclusively, and not on customers' ability to manage cost overruns: "This stepped approach will ensure that TOs have an exposure to cost overruns that is commensurate with the risks that they are able to manage".



Furthermore, Ofgem's stepped TIM proposal highlights a wider point. It is unclear whether a TIM incentive, aimed at opex vs capex optimisation, remains a suitable mechanism during a period of high capex investment. It does not solve the issue of TO delivering infrastructure late, and incentivises delaying capex investment to other periods. This is in direct opposition to the proposed CSNP ODI-F, which, at best, adds complexity but also could lead to TOs balancing the trade-offs between these incentives to maximise their revenue. This risk compounds the already present risks from the TIM, such as TO gaming of ex-ante costs. Ofgem should therefore accept that with the proposal of a Stepped-TIM, such a mechanism is no longer applicable and should:

- Remove the complexity of ex ante costing, and move to a rate of return to deliver this scale of capex investment.

OVQ24. Do you agree with our proposals to allocate £500m for SIF funding?

No, SIF has not proven valuable for customer costs and should not be allocated further funding. Ofgem should remove the SIF, which was also recently reported as lacking transparency by [Citizens Advice](#): "only half of completed [SIF] projects

report on outcomes, largely because the reporting template doesn't require them to compare results against original goals".

ETQ10. Do you have any views on whether the Innovative Delivery Incentive and/or SO:TO ODI-F should be used to incentivise TO action regarding transmission losses?

ETQ24. What are your views on the proposed New Infrastructure Stakeholder Engagement Survey ODI-R, including areas of engagement measured, the proposed survey design, the stakeholders targeted, and the proposed reporting format? NA

The RIIO incentive structure should be simplified and reduced to focus on network utilisation, constraints, and delivery (with penalty only). Further micro incentives, such as the SO: TO ODI- F, should not be introduced.