

Akshay Kaul
Director General, Infrastructure
Ofgem
10 South Colonnade
Canary Wharf
London
E14 4 PU
(by email RIIO3@ofgem.gov.uk)

26 August 2025

Dear Akshay,

Subject: Response to Ofgem Draft Determination RIIO-3 (non-confidential)

I am writing on behalf of National Grid Electricity Distribution ("NGED") in response to Ofgem's RIIO-3 Draft Determination ("DD") Consultation published on 1 July 2025 covering the electricity transmission, gas transmission and gas distribution sectors. I trust that our response is helpful in supporting the RIIO-3 process, and useful in the context of supporting an overall workable and investible framework for the Final Determinations at the end of this year and the ongoing framework design for ED3 which protects consumers' interests and delivers value adding outcomes for consumers. The Final Determinations can set precedents for ED3, therefore our response focuses on the potential read across of Ofgem's DD into the framework design for ED3.

Purpose of NGED's Response

The next Ofgem price controls for Electricity Transmission ("ET"), Gas Distribution ("GD"), and Electricity Distribution ("ED"), respectively, come at a time of unprecedented change to Great Britain's ("GB") energy networks. As we transition away from reliance on carbon intensive sources of generation and towards a net zero future by 2050, the previously "passive" ED network will support more than half of all renewable generation by 2030.

The Government's Clean Power 2030 ("CP2030") agenda, underpinned by the NESO's TMO4+ reforms, underline the ever-increasing interconnectedness of the whole energy system. All net zero pathways anticipate significant electrification of heat, transport, and industry, with electricity demand rising from ~290 TWh today to between 705–797 TWh by 2050. As Ofgem has said, the decisions we make now will shape the infrastructure that underpins our clean energy future. Distribution Network Operators ("DNOs") also have duties that explicitly support economic growth alongside their traditional responsibilities. These duties support: Enabling Infrastructure for Economic Growth; Supporting the Supply Chain; Strategic Planning Alignment; Facilitating Low Carbon Technology Uptake; Maintaining Investor Confidence.

It is for these reasons, amongst others, that NGED is responding to the DD Consultation. As the largest Distribution Network Operator ("DNO"), NGED is at the forefront of the transition, and the decisions that are made now for ET and GD will impact ED and its users more so than any previous price control periods. Accordingly, what follows is purposefully focused on the potential implications of Ofgem's DD on DNOs.

We trust that this perspective will be a valuable reflection point for Ofgem as it prepares to make its

Final Determinations.

NGED's response focuses on the following five main Ofgem RIIO-T3/GD3 documents:

- Overview Document¹
- Finance Annex² (see Annex 1)
- GD Annex³ (see Annex 2)
- ET Annex⁴ (see Annex 3)
- RPEs and OE (see Annex 4)

Overview Document

A Strategic and Adaptive Framework: As Ofgem has said we recognise that we are at a pivotal moment for GB energy networks. The UK Government has committed (as a legal obligation) to reaching net zero by 2050, whilst Ofgem has emphasised the need to increase network resilience and facilitate long-term affordability over this period. There is broad stakeholder ambition to achieve these objectives but only four price control periods to do so.

Ahead of this 2050 commitment, the ambitious goal of CP2030 will require a regulatory framework where regulatory processes are not a blocker to timely consumer driven investments. The framework should include advanced funding requirements for ED3 to ensure prompt mobilisation when the price control comes into effect in 2028, and mechanisms such as the Advance Procurement Mechanism ("APM") in ET3 are examples of enablers which will also be critical for DNOs. Ofgem now has new duties related to net zero and growth which were not in place at the start of ED2, and all stakeholders must continue to foster a whole system mentality to ensure GB's policy goals and ambitions are met. We are fully committed to playing our part in this transition and to help shape, lead thinking and support delivery.

The ED3 period will also mark a seismic shift in how we plan and operate energy networks. We will move from an approach of ongoing network management with incremental expansion to one of significant growth, where investment needs over the longer term are no longer uncertain. A key question will be the precise pathway and speed at which customers and consumers adopt the transition. Given this uncertainty and resulting need for adaptability, central planning alone will not be agile enough to respond to rapidly evolving customer needs and the growth we will see in the future.

Making efficient investment decisions to fund the future: We agree with Ofgem that it is important to create conditions that enable investment to be made, and recognise that the regulatory process should be robust to ensure that the costs are fair and efficiently incurred, and that investments are the right ones that will benefit customers in the longer-term. A regulatory framework that supports strategic network investment and a programmatic approach requires a different approach to historical cost benchmarking and Totex allowance provision. It will therefore be important to consider and adopt a forward looking, longer-term (i.e. a multi-cycle) benchmarking framework. Unit costs for building and upgrading the network will change significantly in the coming years, making it untenable to rely on historical cost benchmarks. The increasing need for climate resilience and integration of smart automation and telecommunication technologies will not be reflected in traditional benchmarks. Furthermore, the rising cost of assets, availability of skilled labour, and new ways of working will limit the effectiveness of historical cost comparators.

¹ [RIIO-3 Draft Determinations Overview Document](#)

² [RIIO-3 Draft Determinations - Finance Annex](#)

³ [RIIO-3 Draft Determinations – Gas Distribution](#)

⁴ [RIIO-3 Draft Determinations - Finance Annex](#)

Our analysis shows that strategic investment will be essential in smoothing the long-term build profile of the electricity distribution network. While there is uncertainty in the exact timing of future demands, the risk to customers and to society of under-investment is now far more significant than the risk of too early investment. It is essential therefore that the needs case is clear, and the optimum options put forward.

Examples of current significant industry changes, which networks and the ED3 framework will need to be able to respond to include for example Market-wide Half-Hourly Settlement (“MHHS”) reform, which is seeing the electricity industry working together, is a significant move forward in how electricity is used and accounted for. The outcome of MHHS will be a faster, more accurate settlement process for all market participants, introducing site specific reconciliation using half-hourly meter readings. This programme will be a key enabler to a smarter, more flexible energy system and will be vital in supporting flexible solutions to enable the nation's transition to net zero.

As we look forward to ED3, we are of the view that it will be more important than ever to ensure we have a well-structured approach to be able to articulate and demonstrate the wider measure of consumer value that the business plans will deliver. Accordingly, a Consumer Value Framework (“CVF”) will be critical in assessing the overall value to consumers, and we have already made proposals to Ofgem on how this could work and look forward to developing this further.

Financial Framework – Ensuring Stability and Confidence: We have not undertaken detailed financial assessment of the DDs. However, at a principles level the package must be both workable and financeable. The financial arrangements need to set an investable package with equity returns consistent with market benchmarks and cash profiles which support strong investment grade ratings (Baa1/ BBB+ or better). This is essential for providing investor confidence to ensure that capital is available to deliver the significant transformation required to achieve CP2030 and net zero by 2050. We have provided further information in Annex 1 to this letter.

Impact on domestic consumer bills: We believe the RIIO framework must strike a careful balance between: affordability for all customers, particularly those in vulnerable circumstances; timely and efficient investment to enable decarbonisation and economic growth; and fair returns that incentivise consumer focussed performance and innovation without overburdening bill payers.

To support this balance, RIIO-3 and beyond into ED3 should focus on:

- **Outcome-Based Efficiency:** Focus on delivering outcomes (e.g. improved reliability, capacity for low-carbon technologies, and customer satisfaction) rather than simply minimising short-term costs. This ensures value for money over the long-term and supports Ofgem’s growth duty to help support the wider economy as energy networks transition to meet CP2030 and net zero.
- **Targeted Support for Vulnerable Customers:** Strengthen mechanisms that protect those most at risk of energy poverty, including through social tariffs, targeted investment in fuel-poor areas, and enhanced customer engagement.
- **Transparent Cost-Benefit Analysis:** Ensure that all proposed investments are supported by a clear value framework (such as a CVF) with robust, transparent cost-benefit analysis, including whole system impacts/benefits and long-term savings. This helps justify spend and maintain public trust.
- **Innovation and Flexibility as Cost-Control Tools:** Encourage the use of flexibility services, analysis of options, and non-network solutions to defer or avoid costly reinforcement where appropriate. These approaches can reduce overall system costs while improving service. At the same time, a balance will need to be struck between regionally

directed strategic investment and the opportunity to optimise network build, system operation and local flexibility.

- **Predictable and Stable Bill Trajectories:** Avoid sharp increases in customer bills by smoothing investment profiles and using regulatory tools such as uncertainty mechanisms and re-openers to manage risk and volatility.
- **Regional Fairness and Equity:** Ensure that regional differences in investment needs do not lead to disproportionate bill impacts. A fair allocation of costs across regions will thus be essential to maintaining public support.

As highlighted in our ED3 Framework response⁵ we believe it is important that a full and detailed Impact Assessment is undertaken as part of the determination of both the price control and the earlier stage Sector Specific Methodology Decision. While we welcome the Impact Assessment set out by Ofgem as part of RIIO-3 we believe there is the opportunity to further build on this for ED3. We are ready to further engage with Ofgem as the thinking on ED3 and the associated impacts develops.

Decarbonising the energy system: Meeting the Government's legal obligations to decarbonise by 2050 will necessitate the use of flexibility services, including a system optimisation tool, working in concert with greater transmission network build over a longer horizon to support new sources of power. The precise pathway through the transition will continue to evolve and will vary regionally and across networks. The NESO Future Energy Scenarios set out potential pathways to net zero, it is crucial that the application of the pathways is not overly prescriptive and allow flexibility for DNOs to plan and respond to customers changing needs.

Outputs and incentives: Under the RIIO framework, Ofgem defines outputs that capture the aspects of network service quality most valued by both current and future consumers, including those in vulnerable circumstances. These outputs should be clearly defined, quantifiable, and largely within the control of network companies to deliver. The ED3 period will see a step change in new outcomes for consumers as we deliver CP2030 requirements and respond to a significant increase in LCT adoption across various customer segments. Amongst other things, this will require new incentives in relation to connections, delivery of headroom in the right places and reducing overall system costs, whilst focusing further on climate resilience and adaptation. The regulatory framework for ED3 should be centred on "outcomes-based" regulation with a suite of strong "fair bet" incentives on what matters most for customers and which support DNOs and DSOs to innovate to deliver the best solutions. We would be keen for earlier engagement on the incentive framework for ED3 to ensure companies are fully incentivised (across totex and non totex) to deliver good customer outcome.

We acknowledge Ofgem's proposals for innovative early-stage network delivery in ET and will explore how this incentive could apply to ED. We support in principle mechanisms that value capacity released and headroom but believe further development of complementary incentives are needed to ensure headroom is released in the right location at the right time.

The overall scale of output package and associated incentives should increase in ED3, reflecting the important new sources of value and key deliverables for consumers in the period. Incentives should stimulate and reward networks across the sector to deliver this change and the associated benefits. It is important that in developing an output incentive framework that it is first and foremost through a consumer lens to meet their needs and which ensures networks are focused on delivering those things consumers value most. Focus on customer segmentation and a broader recognition of consumer value will therefore be key. A decision-making tool, such as the CVF proposed by NGED, can assist in this regard.

⁵ <https://www.ofgem.gov.uk/consultation/framework-consultation-electricity-distribution-price-control-ed3>

Setting baseline totex allowances: We agree with the DD position that networks baseline totex allowance will need to be supported by a suite of streamlined and simplified UMs. Looking forward to ED3, UMs must:

- provide flexibility to accommodate any possible routes to delivery;
- allow for known uncertainties (e.g. disparity between tRESP and RESP);
- mitigate the risks of unexpected uncertainty (e.g. uptake of LCTs);
- reflect real changes in costs; and
- consider volume drivers where these align with consumer needs in each of the DNOs.

A totex baseline which is set too low, with wide ranging UMs, would not provide the line of sight, nor support the capability build, to deliver the step change required to meet the ambitions of the Government's growth agenda.

Ofgem has recognised the realities of increasing pace of infrastructure build, and acknowledged that seeking precision, or waiting for uncertainty to resolve itself, could be the "enemy of the good". A similar philosophy in terms of removing barriers to progress should be applied in ED3 in terms of investment criteria and determination of ex-ante allowances. The portfolio and programmatic nature of electricity distribution delivery differs significantly from large-scale, discrete transmission projects. Greater visibility of future totex will support the planning and management of the investment needed to meet future consumer needs in this period. This will also provide increased certainty for supply chain capacity build and long-term contracting.

Where the cost assessment approach has simply been rolled over from RIIO-2, or subject to tweaks, this may not necessarily be appropriate in the changed forward looking context. We strongly support using a toolkit approach, considering top-down models and a more granular, 'bottom-up' assessment, less reliance on historical unit costs and benchmarks, and welcome the use of qualitative assessment which can account for regional and company specific factors.

In addition, the cost of service will need to recognise the cost of capability build including costs which may be incurred in terms of business support costs ("BSC") and closely associated indirect costs ("CAI") ahead of the delivery of the infrastructure itself. We welcome the inclusion of mechanisms for these in ET, but more is required to ensure these can operate as more automatic and simpler mechanisms to avoid regulatory burden and complexity.

Uncertainty Mechanisms: We recognise the importance of UMs and the challenges that Ofgem has set out in the DD. Whilst managing uncertainty of need and cost for sectors such as DNOs, UMs need to be able to cater for regional differences with regard to the pace and pathway of the transition in different regions. A one size fits all approach for UMs is not appropriate across sectors. We therefore welcome clarity that provisions are in place for innovation, cyber resilience, and data and digitalisation. The materiality thresholds must not be an artificial barrier to bringing forward investments and therefore Ofgem should consider whether it is appropriate to introduce an exception mechanism to the materiality thresholds.

Totex Incentive Mechanism ("TIM"): Totex incentivisation drives both unit cost reductions and innovation in the best solution for consumers. The TIM should therefore be designed to incentivise both the efficient choice of network intervention as well as the efficient delivery of the best solution identified. It should apply across all categories of network expenditure, including reopeners. The nature of the works, and the approach to the overall delivery of network solutions, which run extensive portfolios/programmes of much smaller work, on shorter time cycles that must flex for changing consumer drivers, means a different approach will be required for ED from that proposed by Ofgem as part of the DDs for ET. When paired with delivery monitoring and incentives, as supported by both Ofgem and NGED, this approach to the TIM has the potential to support timely delivery of optimal solutions, minimise regulatory burden, and maximise consumer value. While

specific Price Control Deliverables and capacity delivery incentives have merit in particular circumstances, for most works within an ED context a general incentive and volume-driven framework best fosters innovation and has the ability to best adapt to evolving consumer needs.

Innovation: Given the challenges with encouraging innovation solely through five-year price control allowances and incentives, we support the case for additional funding mechanisms to promote long-term, more transformational innovation. Electricity networks need to transform rapidly over the coming decades as we seek to enable economic growth and full transition to clean energy generation. This needs to occur whilst managing the competitiveness of GB energy prices for business, its effect on economic growth, and affordability of bills for consumers. In particular:

- We need to accelerate the delivery of connections, with the largest build out of networks since the “supergrid” was first built. We need to simultaneously deliver clean power and support electricity demand doubling at a minimum – i.e. connecting 120-160 GW more generation, new large demands (e.g. data centres) and millions of new EVs and heat pumps by 2050. This will require innovation in commercial arrangements and engineering in the way we design, build and operate the networks and substations.
- We need new solutions to balance a system with more variable and dispersed generation and with a larger and more active demand side (e.g. EVs, heat pumps, data centres).
- Affordability and industrial competitiveness are paramount with the UK currently having some of the highest energy bills of all industrialised nations. While we transform networks, we need to find the optimal balance between cost and the timing of future societal need.

This all means we are at a critical point where we need to accelerate the pace of innovation and develop new, more efficient, and transformational solutions to these challenges heading into T3 and ED3 and with the NESO's expanded remit. Having appropriate innovation mechanisms will be critical to meeting the challenges we face across the sector.

Business Plan Incentive (“BPI”): The BPI is an important incentive to encourage the development of robust, forward-thinking business plans that deliver efficiency and offer good value for consumers. The structure of the BPI as currently designed is heavily weighted towards comparative costs and therefore by its nature awards only the frontier performing company for that stage of the assessment. The assessment of costs does not consider regional variation, and therefore looking forward it should consider regional difference to address location-specific engineering, climate adaption challenges and solutions. A “one size fits all” approach is not conducive for assessing efficient costs reflecting regional differences. We do welcome a BPI incentive for ambitious plans, but it is not clear how stakeholders’ views and needs are factored into the decision-making process when assessing the ambition stage. Looking forward to ED3 it would be helpful to understand how regional factors can be addressed and also understand how plans will be tested for ambition to ensure we can develop business plans that truly provide value for existing and future consumers.

Supply Chain and Skills: The transformation to achieve net zero will only happen if robust supply chains and increased capacity of skilled workforce are secured. Accordingly, Final Determinations must recognise the critical need for upskilling across the sector, with targeted investment in training programmes. Looking forward to ED3 this will also be true and it will be crucial to account for cost pressures beyond typical RPE-based approaches, which rely on economy-wide or sectoral exogenous indices. These indices must evolve to reflect the changes in the sector. Early action on skills development within the ED2 timeframe is vital to ensure the capacity and capability required for the transition are in place. Delaying skills development will lead to a slow start and put at risk the realisation of significant environment and consumer benefits. An APM for T3 will ready the supply chain and be a critical enabler to support network development and build. This is also the case for DNOs. An APM tailored to the unique nature of distribution network investment and assets will provide supply chain visibility of the work needed and will provide for a smooth build rate and setup the DNOs up for success as it delivers the biggest energy transition ever.

Data and digitalisation: We recognise that there will need to be a significant transformation and role for data and digitalisation as we transition to CP30 and net zero. We understand the importance of sharing data that is timely, consistent, accurate, and legally available, is a key foundation. We believe there are still further opportunities and consumer benefits regarding sharing of data between DNOs and wider stakeholders. A strong data foundation is the necessary building block of high-performing and trustworthy AI capability and augmentation. There is a broad spectrum of benefits and opportunities for AI in driving operational efficiency, innovation and customer outcomes. However, this must be managed and governed carefully, given the infancy of using AI in the sector, we are keen to work with Ofgem and other DNOs to help define a robust governance framework and guidance that will encourage a risk-managed approach to enabling AI safely and responsibly.

Cyber resilience: We recognise that as networks become smarter and more automated, network operators will increasingly rely on interconnected technologies and systems to deliver services to customers. Examples include the increased use of AI and applications capable of machine learning to support outage planning and network design activities, real-time network optimisation and system configuration. When coupled with an increasingly hostile and sophisticated cyber security threat landscape we must ensure that we are able to respond effectively with a defence in depth of IT and OT preventative and detective cyber security measures. We agree with the proposal for a unified Cyber Resilience Business Plan submission for our ED3 cyber security investment needs. We agree with the continued use of ‘use it or lose it (“UIOLI”)’ allowances and the opportunity to submit a re-opener application for additional cyber security funding within the ED3 price control period given the complexity of OT environments, the ongoing development of best practices and growing maturity of cyber security solutions in this area.

Engineering Justification Papers (“EJPs”): We recognise the critical role EJPs play in supporting transparent, evidence-based, investment decisions and the role that they have played for DD for RIIO-3. As we move towards ED3 it would be helpful if guidance could be provided as soon as possible and in advance of Business Plan Guidance. For ED2 NGED submitted over 200 EJPs. Therefore, having early visibility on the requirements and format would be extremely helpful. The EJPs also form an integral part of the Totex builds, which are subject to the NGED Board’s scrutiny. Having guidance in 2025, even if only in draft form, will facilitate more time to embed the requirements into our processes.

Real Price Effects (“RPEs”) and Ongoing Efficiency (“OE”): RPEs are an essential part of a Totex allowance. Whilst we agree with Ofgem’s proposal of applying RPEs to labour, materials and plant and equipment, the way that RPEs have been considered in the past is not appropriate for the next ED price control.

The cost pressures faced within our sector will not be easily replicated through exogenous indices. There will be a need to recognise market concentration, supply chain challenge and capacity and macroeconomic effects in terms of infrastructural demand. This means we can no longer be thought of simply as price takers within a market environment in which equilibrium is assumed.

Accordingly, we do not agree with the approach to setting the OE challenge with continued reliance on regulatory precedent. Ongoing efficiency must recognise that we are facing a step change in terms of activity and recognise that DNOs are no longer operating in a status quo environment. We must return to first principles, ensuring the approach adopted is grounded in evidence and balances risk in a manner which supports financeability and the wider consumer interest. Our detailed response on RPEs and OE is set out in Annex 4 to this response.

Conclusion

We welcome the opportunity to respond to the RIIO T3 and GD3 DD Consultation and look forward to continuing to engage with Ofgem through the process leading to ED3. I trust that our response is helpful and look forward to continuing to work with you to deliver a success outcome for ED3 that creates real value for consumers as we deliver CP2030 and transition to net zero.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'P. Branston', with a stylized flourish.

Paul Branston

Director of Regulation

National Grid Electricity Distribution

Annex 1 - Response to Finance Annex

Summary of key issues raised in our response to question below

- NGED welcomes the improvement in Ofgem's RIIO-T3 framework in the draft determinations. However, further work is necessary in order for the package to be considered investable.
- Ofgem has not completed a thorough assessment of investability which will have implications beyond RIIO-T3 and into ED3. We encourage Ofgem to develop a more robust framework for assessing investability to ensure networks can attract the necessary capital.
- Ofgem's allowed return is not sufficient and does not consider a range of credible and robust cross-check evidence. Ofgem should use a wider suite of cross-checks and consider whether the allowed return is competitive relative to other investment opportunities.
- NGED supports the targeting of a strong investment grade credit rating and consideration of long-term financeability, however levers which are appropriate for transmission may not automatically translate into distribution and long-term considerations should be accompanied by long-term solutions.

Our response to the Finance Annex refers to reports submitted in response to Ofgem's RIIO-T3 DD provided by the ENA, of which NGED is a member; please see ENA response for these reports

The financial framework which is set for RIIO-T3 will have a significant impact well beyond the transmission sector. It will set regulatory precedent, shape investor perceptions of Ofgem, and provide a critical input into the financing environment for the RIIO-ED3 price control.

A large number of financial issues within Ofgem's price controls are sector agnostic and do not materially differ between Transmission and Distribution. It is therefore important for NGED that the financial parameters of Ofgem's price control for TOs and GDNs are set in a fair, predictable and transparent manner which results in an investable price control.

Consequently, NGED welcomes the opportunity to respond to Ofgem's DD. In particular, we welcome the improvements Ofgem has made to the financial package since the RIIO-T3 SSMD. However, NGED believes further development is necessary to ensure that Ofgem's price controls are investable.

At the same time, we recognise that Electricity Distribution is a unique sector with aspects which will require careful thought and calibration to ensure that the financial framework adequately protects consumers and ensures that NGED can efficiently finance ED3. Given the very early stages of the ED3 price control process, NGED is not in a position to respond to each issue in detail, particularly on specific points of policy which the ED3 process will consider in their own right, relying on precedent from the T3 FD where appropriate. Our response to the ED3 SSMC later this year will set out our positions in detail, and we look forward to working collaboratively with Ofgem to ensure a financeable and investable ED3 price control which delivers the investments that consumers need.

Our response on RIIO-T3 finance issues should be regarded as complementary to the submission from the Energy Networks Association ("ENA")⁶. In consequence, we do not answer each consultation question individually but instead comment on key themes and areas that are most

⁶ ENA, August 2025, Response to Ofgem T3 Draft Determinations Finance Annex

relevant to NGED. Any area we do not discuss should not be interpreted as taking a positive or negative position, and our ED3 SSMC response will address all aspects in detail.

Financeability and Investability

RIIO-3 represents a critical juncture to prepare the UK's electricity networks for a sustainable future. To do this will require record levels of investment in order to finance the transition to net zero. At present, distribution networks do not face the same capacity constraints as transmission. However, as Ofgem recognised in its ED3 Framework decision, DNOs will still require very high levels of investment relative to previous price controls.

*'ED3 will be a critical period to enable the appropriate network interventions to stay ahead of any constraint problem arising. **Preparing the electricity distribution networks for this increased load will require significant investment to expand the network**'.*⁷

We agree that ED3 will represent a crucial period for DNOs to invest in infrastructure and upgrade network capacity in order to protect and deliver for consumers. To deliver this investment, as in transmission, Ofgem will need to ensure that networks are both financeable and investable.

NGED welcomes Ofgem's work to integrate a consideration of investability into the RIIO-T3 price control process. However, we do not consider that Ofgem's RIIO-T3 approach to assessing investability fully encapsulates all the necessary considerations. As a result, the proposed package does not represent an investable package. This is primarily driven by (among others):

- **A lower allowed return than comparable investment opportunities:** Investors require 9-10% nominal returns in order to compete with other credible investment opportunities returns available to investors, for example in US markets,⁸ or UK nuclear such as Sizewell C – where even the low point in the cost of equity ("CoE") range is significantly above Ofgem's point estimate of allowed CoE in RIIO-T3 Draft Determinations⁹. Investors also require a sufficient premium for equity relative to returns available to investors in safer asset classes (e.g. debt). This level of return available in the market, as well as the proximity to debt returns, will continue to represent critical datapoints for the ED3 control.
- **A form of return which does not meet investor expectations:** Investors value the return *of* and return *on* RAV, as well as the absolute level. Investors in regulated utilities expect dividend yields of c.5%¹⁰ as well as earnings which grow in line with assets. It is important that investability considers how investors receive return, as well as the percentage yield.
- **A workable and deliverable price control:** The price control must fully fund required investments and recognise the practical challenges of delivering larger and wider price controls, reducing complexity and delay where possible.
- **Insufficient detail on incentives and risk:** Investors must be confident they can *earn* the allowed return, which depends on the calibration of the price control and downside risk, as well as have a realistic possibility of outperforming the determination. Ofgem has not provided enough detail to assess this matter and should provide further detail at FDs. Ofgem should endeavour to provide more detail at an earlier stage in future price controls.

We refer to the ENAs' response for a fuller discussion of how investability can and should be assessed.

It is critical that investability is not considered an issue which is limited to the transmission operators. Electricity distribution networks will face similar challenges, and it is important that

⁷ [Framework decision: electricity distribution price control \(ED3\) | Ofgem](#).

⁸ ENA, August 2025, Response to Ofgem T3 Draft Determinations Finance Annex.

⁹ Centrica, July 2025, [centrica-2025-sizewell-c-presentation.pdf](#), pg 7; downside case 10% IRR.

¹⁰ ENA, August 2025, Response to Ofgem T3 Draft Determinations Finance Annex.

Ofgem has an appropriate framework in place which can be sustained in order to provide investors the confidence they need to provide capital. This framework should be able to be deployed on a cross-sector basis to provide investors with consistency and comparability. Fundamentally, as in transmission, distribution will carry the same risk; if companies are not able to attract the capital required, then consumers will ultimately bear the cost.

In regard to debt financeability, we agree with the ENAs response and note that while Ofgem's approach contains significant improvements (such as the adoption of a strong investment grade target credit rating), limitations remain.

We support the adoption of long-term financeability modelling and reaffirm our position from the ED3 Framework Decision that the price control should be viewed as part of a long-term ecosystem, with Ofgem's duties extending to both current and future customers¹¹. Ultimately, this requires confidence that a financeable framework exists beyond a single price control cycle. However, addressing longer-term considerations must be accompanied with proactivity and early engagement with the sector where necessary, should financeability issues be identified. An adaptive and flexible approach will also be needed to ensure that where sectors have idiosyncratic considerations, Ofgem addresses these specifically and as per the needs of consumers. In other words, financeability levers which are appropriate for transmission may not automatically translate into distribution, and vice versa.

With this in mind, we noted in our ED3 framework response that DNOs may face financeability constraints in RIIO-3 and beyond as a result of Ofgem's alteration of regulatory asset lives in RIIO-ED1. We expect to provide more detail in our response to the ED3 SSMC, but from a policy perspective it would not be appropriate in electricity distribution to remedy issues caused by depreciation policy through an increase in the level of fast money, as is the case in Ofgem's RIIO-T3 DDs. Where the cause of a financeability issue is clear, then the remedy should aim to address this cause at source. For ED3 NGED would likely advocate for changes to regulatory depreciation to solve financeability constraints caused by asset lives, though this is not to say that alteration of fast/slow money is not an appropriate lever to address appropriate other issues in the right circumstances if and when necessary.

NGED is developing analysis to consider the implications of changes of depreciation policy ahead of the ED3 SSMC. Given the significance of this issue, we look forward to working closely with Ofgem and we have shared the scope of our initial work in order to enable optimal collaboration. We will then address this issue more substantively in our ED3 SSMC response later in 2025.

The allowed return on equity

NGED agrees with the ENA response with regards to setting the allowed CoE and we defer to this response for consideration of specific points.

NGED believes that the RIIO-3 DD CoE is uncompetitive at a time when networks must attract significant capital. In order for investors to trust that the CoE reflects all available market evidence, Ofgem should incorporate a much wider range of cross-checks in ED3 as well as consider whether there is a case for CAPM evidence to be given less weight as a result of its evident limitations.

Ofgem's approach to calculating the CoE creates a number of broad policy concerns which will impact ED3. The most significant of these is the apparent rigidity in the methodology for setting the CoE even when macroeconomic conditions have fundamentally changed, which results in a regulatory assumption which does not accurately reflect contemporaneous market conditions. This

¹¹ NGED, January 2025, ED3 Framework response.

is evidenced through an examination of a suite of market based cross checks, which indicate that Ofgem's DD CoE is too low.¹²

Ofgem has rejected the use of most of these cross-checks and instead relied on its limited suite of existing cross-checks. However, Frontier finds that Ofgem has applied different evidential standards to its own cross-checks and those proposed by companies¹³. Most pertinently, Ofgem dismisses evidence based on dividend growth models ("DGMs") as it notes that '*Dividend growth models are also highly sensitive to assumptions about the future dividend growth rate which is uncertain and can lead to very different outcomes*'¹⁴. However, paradoxically Ofgem in parallel continue to rely on MAR evidence which itself is based on DGM analysis. This represents a clearly inconsistent standard of evidence, which in turn leads to exclusion of credible evidence and results in an understated allowed return.

The lack of flexibility in Ofgem's CAPM-derived CoE is rooted in the 'through-the-cycle' approach to estimating the TMR. This approach assumes that the TMR may, at any one time, be too high or too low but is nevertheless appropriate as it reflects data over a very long time period. However, RIIO-3 – in both transmission and distribution – will take place post the conclusion of the 'lower-for-longer' rates environment and see rates at higher levels from where they have been in many years. As a consequence, the long-term approach means investors are being (or will be) asked to accept a lower level of return, relatively speaking, than the return on the 'open market' would suggest.¹⁵

However, Frontier Economics highlights how Ofgem has consistently reduced the TMR in line with market rates to present, but has then applied an inconsistent approach at RIIO-3 as it has not significantly increased the TMR now that market rates have markedly increased.¹⁶ This consequently risks networks being unable to raise the capital they require, as cross-checks to the TMR indicate that in current market conditions it is not competitive. In the long run, it is clear that this approach is not consistent with regulatory predictability and stability; in a period where Ofgem is seeking to incentivise investment, creating a perception of asymmetry among investors risks undermining the positive intent Ofgem shows through its consideration of investability.

NGED encourages Ofgem to consider implementing an alternative TMR approach in future price controls, such as the TMR Glider proposed by Frontier, which better reflects investor requirements whilst providing a high degree of protection to consumers^{17 18}.

More broadly, there are a number of further issues with Ofgem's CAPM approach. These issues are particularly challenging when the risk profile of both TOs and DNOs is fundamentally changing on a forward-looking basis, as the CAPM model is backwards looking and does not take into account forward looking risk. We support Ofgem's use of European comparators as an important step to increase the robustness of the beta estimate, but further work is required to consider the implications of increased capital intensity as well as the 'low beta anomaly' explored by Oxera in their report submitted by the ENA.¹⁹

Whilst the ET3 process is at an advanced stage, the ED3 price control offers Ofgem the opportunity to examine whether the overall methodology for estimating the CoE should be reassessed. In particular, the RIIO-ET3 process has highlighted the structural issues with the CAPM model. Ofgem should consider whether the lessons learned from the T3 process indicate

¹² Frontier Economics, August 2025, Updated cost of equity cross-checks evidence.

¹³ Frontier Economics, August 2025, Cross check standards of evidence.

¹⁴ Ofgem, July 2025, RIIO-3 Draft Determinations - Finance Annex.

¹⁵ Frontier Economics, August 2025, Assessing regulators' approach to setting the TMR Implications for RIIO-3.

¹⁶ Frontier Economics, August 2025, Assessing regulators' approach to setting the TMR Implications for RIIO-3.

¹⁷ Frontier Economics, August 2025, Updated cost of equity cross-checks evidence, Part 2.

¹⁸ Frontier Economics, August 2025, Assessing regulators' approach to setting the TMR Implications for RIIO-3.

¹⁹ Oxera, August 2025, RIIO-3 draft determinations—CAPM parameters and debt-based cross-checks, section 4.3.

that other CoE models should be given more weight. These alternative models might include approaches currently considered 'cross-checks'.

The allowed return on debt

NGED will consider its own position on the cost of debt as part of the ED3 SSMC response. Broadly speaking, we support the move to RAV-weighted CoD as well as semi-nominal WACC. However, the additional cashflow generated by the semi-nominal WACC should not be considered an appropriate financeability remedy to any issues with regulatory depreciation, as these are separate areas which should not offset each other. NGED also supports the continuation of the infrequent issuer allowance in cost of debt, if evidence indicates it is required. We will comment further on these issues at SSMC, as necessary

Summary

NGED welcomes the opportunity to respond to Ofgem's RIIO-T3 DDs and welcomes the improvements which have been made between the SSMD and DDs. However, we believe that certain aspects of the price control require further calibration and adjustment in order to represent an investable price control. Actions taken by Ofgem in transmission will set an important precedent for the upcoming ED3 price control, and we encourage Ofgem to consider the areas we have highlighted in tandem with the response from the ENA.

We look forward to responding to Ofgem's ED3 SSMC once published, and welcome to opportunity to work collaboratively with Ofgem throughout the price control process.

Annex 2 - Response to GD Annex

Summary of key issues raised in our response to question below

We welcome the:

- Broader move towards greater flexibility in uncertainty mechanisms to allow efficient recovery of costs.
- Introduction of mechanisms that allow network companies to seek funding or recover costs where future obligations are uncertain.
- Proposal to maintain existing Totex Incentive Mechanism sharing rates.
- Proposed mechanisms used to assess costs that are highly uncertain, unique or exhibit significant variation and support the removal of these costs from the totex model.

We do not think it is appropriate to:

- Fund large portions of load related expenditure via uncertainty mechanisms. These should be primarily funded via baseline allowances, complemented by uncertainty mechanisms to fund only investments that either have high uncertainty around need or short lead times.
- Reduce funding or strength of incentives from previous price controls as proposed for the VCMA UIOLI mechanism. This risks deterioration from current performance levels.
- Use historical averages for incentive target setting as proposed for the Customer Satisfaction and Complaints Metric ODI-F. This does not reflect the reality that customer service expectations are expected to continue increasing.
- Simply roll over the cost of service approach from GD2 as opposed to giving more fundamental consideration to revised context.
- Use a single top-down model, rather than several models, or exclude the use of more granular assessments and disaggregated benchmarking as part of a wider toolkit approach.
- Apply pre-modelling adjustments for regional factors. Rather, the variables describing the regional factor should be included in the model.
- Apply the proposed catch-up efficiency challenge. We believe that an upper quartile challenge is proportionate and is sufficiently stretching, whilst avoiding 'cherry picking'.

GD ANNEX QUESTIONS

Outputs and incentives

Infrastructure fit for a low-cost transition to net zero

GDQ1. Do you have any views on our proposed approach for the GD-specific environmental commitments, costs and targets?

No comment.

GDQ2. Do you have any views on our proposed funding for the DPLA and ALD

No comment.

GDQ3. Do you agree with our proposed design of the 7 and 28 Day Repair Standards ODI-F, including the proposed performance targets and incentive rate?

No comment.

GDQ4. Do you agree with our proposal to enable the GDNs to submit RESP coordination and engagement activities through NZARD and NZASP?

We agree with the principle of funding proposals that are for the purposes of RESP coordination, engagement and preparation activities as these activities are critical to ensure the RESP maximises its potential to support in delivering positive consumer outcomes. Adequate investments for stakeholder engagement, data sharing, and cross-industry planning are essential if the RESP is to deliver meaningful, timely outcomes for consumers.

However, these activities have been proposed to be funded through the NZARD UIOLI and NZASP Re-opener, which are GT and GD specific uncertainty mechanisms ("UMs"). This risks creating inconsistencies in how RESP activities are supported and funded across sectors that will contribute equally towards development of the RESP.

We therefore support further discussions with Ofgem to explore:

- How equivalent funding arrangements could be applied within Electricity Distribution to ensure parity of support across all relevant sectors.
- Definition of eligibility criteria for RESP-related investments, including definitions of the scope of "coordination", "engagement" and "preparation" activities, to avoid ambiguity and ensure funding is applied to projects that deliver tangible system benefits.

These will ensure a consistent, sector-wide approach to fund RESP-related activities, which will better facilitate the whole system collaboration that the RESP is intended to achieve.

Secure and resilient supplies

GDQ5. Do you have any feedback on our approach to assessing non-mandatory repex workloads?

No comment.

GDQ6. Do you have any comments on the proposed design of the Tier 1 Mains Decommissioned PCD, including the position to retain the 3% cap on the upwards Allowance Adjustment Mechanism?

No comment.

GDQ7. Do you have any comments on the proposed design of the Tier 1 Services PCD, including the position to retain the 10% cap on the upwards Allowance Adjustment Mechanism?

No comment.

GDQ8. Do you agree with the proposed design of the Tier 1 Iron Stubs PCD?

No comment.

GDQ9. Do you agree with our proposal to update the Emergency Response Time LO to prevent the downward reclassification of gas escapes?

No comment.

GDQ10. Do you agree with our proposed design of the ERTLO ODI-R?

No comment.

High quality of service from regulated firms

GDQ11. Do you agree with our proposed design of the VCMA UIOLI mechanism?

In line with good regulatory principles, **we support the introduction of mechanisms that allow network companies to seek funding or recover costs where future obligations are uncertain.** For example, this applies to the current discussion around potential role of DNOs with respect to energy efficiency.

While it is welcome that funding levels have been increased from SSMC to match the GDN's Business Plans, **we disagree with the principle of reducing funding or strength of incentives from previous price controls.**

While the context in gas and electricity distribution may differ, any changes to incentives or funding for vulnerable customer activities should be driven by two core principles: (i) ensuring vulnerable customers are supported effectively in the face of evolving risks and (ii) preventing regression in performance levels or disruption to existing services for vulnerable customers.

Reduced funding risks eroding the progress already made and could lead to backsliding in terms of performance from GD2 levels. Instead of scaling back, the regulatory focus should be on maintaining and building upon current service levels (while avoiding unrealistic or unachievable expectations).

We note that Ofgem has also put forward the view that "investments made by the GDNs in RIIO-GD2 have built the infrastructure and capacity to help sustain support for vulnerable consumers in RIIO-GD3." While infrastructure set up is important, this perspective does not recognise that:

- Greater reach achieved to date means a higher absolute number of vulnerable customers now requiring ongoing support; and
- The nature and intensity of support required will continue to be driven by external factors such as increasing extreme weather events, energy affordability pressures, and the demands of new technologies and digitalisation.

More broadly, we believe there should be a clear transition away from a primary focus on "reach" towards metrics that better reflect meaningful customer outcomes, such as the quality of services delivered and the accuracy and completeness of customer vulnerability data.

GDQ12. Do you agree with our proposed design of the Customer Satisfaction ODI-F?

We support the continued use of a symmetrical incentive for the CSAT ODI-F. This approach maintains consistency with previous price controls and reflects a balanced view of performance, recognising both strong delivery and areas for improvement. Unlike signalled for ED3, we note that Ofgem did not propose a penalty-only design for GD3. We believe DNOs should also be subject to a symmetrical incentive for the CSAT given the importance of maintaining a fair and proportionate incentive framework across all sectors.

We support industry benchmarking to drive consistent standards but have concerns about the use of historical averages for target setting. This approach risks ratcheting and may not reflect future customer expectations or service challenges. As customer interactions become more varied, the CSAT measure should evolve to capture the full range of journeys and continue to incentivise meaningful improvement.

We also note Ofgem's view that customer expectations may not increase significantly in RIIO-3. We disagree. From our perspective, the landscape is changing rapidly, with more tools, services, and customer engagement channels than ever before. As our customer base changes over time, with younger generations becoming new customers, customer service expectations are expected

to keep increasing. It is important that the regulatory framework recognises this shift and continues to drive improvements in customer experience. Customer service should be on par with other industries, and a penalty-only incentive at ED3 is likely to result in limited CSAT improvements. This could even risk customer service in the utilities space falling behind other industries.

In summary, we support the principles of fairness, consistency, and continuous improvement that underpin the CSAT ODI-F; a symmetrical CSAT at ED3 would be consistent with that. However, we encourage Ofgem to consider refinements to the target-setting approach and the scope of measurement to ensure the incentive remains effective and future-facing.

GDQ13. Do you agree with our proposed design of the Disconnections Customer Satisfaction ODI-R?

No comment.

GDQ14. Do you agree with our proposed design of the PSR Customer Satisfaction ODI-R?

See [GDQ11](#) for full response on vulnerable customer related incentives.

GDQ15. Do you agree with our proposed design of the Complaints Metric ODI-F?

We support the principle of incentivising high standards in complaints handling, but we have concerns about the proposed design of the Complaints Metric ODI-F in RIIO-GD3.

The tightening of the minimum performance level from 5.0 in GD2 to 3.5 in GD3 introduces a form of target ratcheting that may not reflect the evolving nature of customer engagement. As the range of services and channels available to customers expands, we expect to see a broader spectrum of complaints, including more frequent feedback on smaller issues. This shift does not necessarily indicate declining performance, but rather a more engaged and empowered customer base.

The changing landscape of customer expectations must be considered. With more tools and avenues for customers to raise concerns, companies are likely to receive a higher volume of complaints, even as overall service quality improves. The metric design should reflect this dynamic and avoid penalising companies for increased transparency and accessibility.

We also note the reduction in the penalty band, with the maximum penalty now applied at a lower threshold. While we understand the intent to drive improvement, this change could disproportionately impact companies operating in a more open and customer-responsive environment.

In summary, while we support the intent behind the Complaints Metric ODI-F, we encourage Ofgem to ensure that its design in ED3 under the BMCS reflects the principles of fairness, proportionality, and adaptability to a changing customer landscape.

GDQ16. Do you agree with our proposed design of the PSR Customer Complaints ODIR?

See [GDQ11](#) for full response on vulnerable customer related incentives.

GDQ17. Do you have any views on the proposed approach to setting unplanned interruption targets for both non-MOBs and MOB through the Unplanned Interruptions ODI-F?

No comment.

GDQ18. Do you have any views on the proposed expansion of the Collaborative Streetworks ODI-F across GB?

NGED supports the principle of collaborative streetworks and its proposed expansion. We would also expect this to be rolled out across GB in ED3. We would welcome discussions to bring forward the opportunity to access this incentive for DNOs ahead of the start of ED3.

We welcome the expansion of the incentive offer to areas outside London and the engagement Ofgem have had with local authorities. We encourage Ofgem to continue their engagement with local authorities in recognition that it is a statutory duty for Highway Authorities to coordinate streetworks pursuant to sections 59-60 of the New Roads and Street Works Act 1991, and to ensure the safe movement of traffic under the Traffic Management Act 2004 (section 16 - The network management duty). We do not think there is an onus on networks to provide evidence of Highway Authority support for the incentive, given these statutory duties. We further support the proposed expansion of the ODI as a regulatory incentive rather than legislative requirement; as we think the former will allow for more flexibility and creativity in the solutions and this will also accelerate the delivery of positive outcomes. We have seen the success of this incentive in London in RIIO-2 and so can clearly see the benefits of this being adapted nationwide.

We would welcome more information from Ofgem with regard to the timing, roll-out and inter-sector considerations of the Collaborative Streetworks ODI from a perspective of Electricity Distribution. We are in the discovery phase of an innovation project centred on collaboration with other organisations in our licence areas. Counterpart Gas Distribution networks, who operate in a price control that run two years ahead of Electricity Distribution, may be eligible for incentive rewards as part of the Collaborative Streetworks ODI for such activity from 1st April 2026. However, the collaborating Electricity Distribution party will currently not receive any incentive for the same activity in the period April 2026 to March 2028. This could be seen as unbalanced and not creating the right system-wide incentives. We would welcome early discussion with Ofgem on similarly expanding the RIIO-ED2 Collaborative Streetworks ODI across GB, or early incentive recognition of proactive collaboration with others ahead of ED3, to avoid this imbalance and regulatory inequity.

GDQ19. Do you have any views on the proposed minimum threshold, the methodology used to set it, and the incentive reward rate for the Collaborative Streetworks ODI-F?

We do not think a minimum threshold for areas outside of London is appropriate. We think the incentive reward rate should be set equivalent to that in GD2 to provide equal opportunities to access the incentive for geographical areas that are covered by the incentive for the first time.

The Collaborative Streetworks ODI-F needs further development to recognise the different operating circumstances outside of London. Transport for London and the Greater London Authority ("GLA") (which brings together c.30 Highway Authorities) operates in a very different way to other transport authorities; for example, Transport for West Midlands which operates within our licence area. The design and calibration of the incentive needs to be considered in the context of the prevailing streetworks environment; for example, whether it is a predominately city/rural area and the types of collaboration the incentive promotes (e.g. utility to utility, utility to council, inter-utility (e.g. distribution to transmission), utility to non-streetworks undertaker, such as developers). There is good opportunity here to positively impact the efficiency of works and onward social and economic gain to road-users, members of the public, businesses and wider society of a well-targeted scheme.

We recommend that Ofgem further engage with stakeholders between Draft and Final Determination to further develop the design of the Collaborative Streetworks ODI for areas outside of London. As part of this, and in the context of a similar expansion of the RIIO-ED2 Collaborative Streetworks ODI across GB being mirrored, we would welcome Ofgem to consider additional and alternative incentive triggers to maximise collaboration, especially in areas outside of London.

One policy solution could be to have two tiers of the ODI, one for areas geographically inside London as a continuation of the area covered by the RIIO-2 ODI, and one for areas geographically outside London that are eligible for the ODI for the first time at RIIO-3.

Whilst the introduction of a minimum annual threshold and reduced incentive rate may be appropriate for geographical areas already covered by the GD2 incentive, and for which the respective GDN is therefore pursuing collaborative streetworks projects into business-as-usual in those areas, we do not think this is appropriate for geographical areas covered by the ODI for the first time where there is not the same maturity. To preserve incentive properties and provide consistent regulation, a minimum annual threshold is not needed. Incentive rates for geographical areas covered by the ODI for the first time should be set equivalent to the GD2 rate; otherwise the incentives will be diluted before the respective network operator has had opportunity to access them. We disagree that “*Establishing a minimum threshold for GDNs helps ensure a consistent and fair approach across utilities*”²⁰ for reasons set out above.

We do not think that introducing a minimum annual threshold for geographical areas outside of London is appropriate (see above). Neither do we agree that this minimum should be derived from analysis of outturn projects from the GLA area, where the operating circumstances may be different. It may impose an overly ambitious threshold for areas outside of London where the number and scale of projects are smaller. Whilst we do not agree with introducing a minimum annual threshold, if a minimum threshold is to be set, it should be based on comparable projects for the area outside of London, in order that it set a reasonable balance of stretch and deliverability for the operating area of consideration.

For example, Ofgem set out in the footnote to paragraph 3.211 of the RIIO-3 Draft Determination – Gas Distribution, that the minimum criteria for a streetworks project to be eligible for the incentive is for it to be 0.2km minimum length - this may need further review in the context of outside of London and to ensure all parties are appropriately incentivised.

Managing uncertainty

Infrastructure fit for a low-cost transition to net zero

GDQ20. Do you agree with the introduction of the proposed Biomethane Connections UIOLI, including with the proposed scope and funding caps?

No comment.

GDQ21. Do you have any views on our proposed design of the Heat Policy Re-opener?

We support the inclusion of the Heat Policy Re-opener and welcome the broader move towards greater flexibility in UMs, including re-openers in the context of the GD3 price control. This is increasingly important as the pace of change in heat policy and standards accelerates, particularly with the upcoming Government decision on the role of hydrogen in heating

²⁰ Ofgem (2025) RIIO-3 Draft Determinations – Gas Distribution, para. 3.213.

homes. It is essential that the regulatory framework allows for the recovery of costs where standards evolve over the lifecycle of a project. For example, future changes to building regulations or the introduction of more stringent Future Home Standards may significantly impact delivery costs. Any funding mechanism should be designed to accommodate these shifts and ensure companies are not penalised for responding to policy developments.

We also note that in some cases, particularly where projects are already underway, there can be uncertainty around cost responsibility, whether it falls to the developer or the network operator, depending on the need for reinforcement. The mechanism should provide clarity and flexibility to address these situations fairly.

Finally, we encourage Ofgem to consider the consequential impacts of heat policy and other changes on electricity distribution. If the government rules out hydrogen for home heating, this will place additional pressure on electricity distribution networks and further increase the need for timely investment and flexibility. A joined-up approach across sectors will be critical to ensuring efficient and coordinated delivery of decarbonisation objectives.

Secure and resilient supplies

GDQ22. Do you agree with our proposed scope of the HSE Policy Re-opener?

No comment.

GDQ23. Do you agree with our proposed design of the Tier 2A Volume Driver?

No comment.

GDQ24. Do you agree with the scope of our Diversions Re-opener?

No comment.

High quality of service from regulated firms

GDQ25. Do you agree with our proposed design and unit rates for the Safety Disconnections Volume Driver?

No comment.

GDQ26. Do you agree with the proposed design of the New Large Load Connections Re-opener, including our proposal to include general reinforcement projects in its scope?

We agree in principle that general reinforcement projects can, in some circumstances, be appropriately funded through UMs.

However, we believe UMs should be used selectively and strategically, funding only those investments that are (i) subject to inherently high uncertainty around need or (ii) required to be delivered within short lead times where the baseline cannot reasonably anticipate the timing or scale of works. For the latter category, we consider that automatic UMs, like volume drivers, are more appropriate than re-openers.

While it may be appropriate for New Large Load Connections to be funded via a re-opener in gas distribution, the context in electricity distribution is very different. For electricity distribution, we echo Ofgem's stance in the ED3 Framework Decision that **the risks associated with under-investment in load related expenditure are far greater than those of over-investment.**

Therefore, load related expenditure should pre-dominantly be within baseline allowances (unless very uncertain or have very short lead times) due to a larger baseline offering:

- Greater certainty to supply chains – enabling long-term contracting, investment in capacity and bulk purchasing, all of which reduces delivery costs.
- Improved ability to plan and mobilise resources – enables more efficient delivery of projects with long lead times or complex deliver requirements.

Together, these benefits enable more efficient and lower-cost delivery, which reduces overall costs to consumers while supporting better long-term strategic planning. This is particularly important to ensure that network companies can accommodate increased electrification, meet future consumer needs, and deliver the infrastructure required for a net zero future.

Therefore, the majority of load related expenditure and totex should remain within baseline allowances with UMs serving as a targeted complement rather than the default funding route for projects while waiting for increased certainty to emerge. **We would welcome further discussion with Ofgem on achieving the balance between use of UMs with a robust and forward-looking baseline allowance.**

GDQ27. Do you agree with our proposal to retain the RIIO-GD2 scope of the Specified Streetworks Costs Re-opener?

We agree with the proposal to retain the RIIO-GD2 scope of the Specified Streetworks Costs Re-opener for RIIO-GD3, but with some clarifications.

The scope of the existing RIIO-GD2 Specified Streetwork Costs Re-opener (similar to the RIIO-ED2 re-opener) should be retained, with the following additions, revisions and clarifications:

1) The GD2 Licence wording concerning Re-opener applications for Specified Streetworks should be updated to reflect applicable costs, not applicable schemes as the key determinant of scope

We consider that the Gas Distribution licence wording of SpC 3.24.7(a) 'How to make an application' should be updated to reflect applicable costs, not applicable schemes.

We think it is important to acknowledge that new/increased activity (and thus new/increased cost) may be needed to comply with otherwise existing regulatory obligations and requirements. For example, permit schemes have and continue to evolve – highway authorities consult on and implement changes associated with expanding applicable streets and increasing applicable fees; we also frequently observe behavioural change in the requested use of certain permit conditions.

2) The scope of the Specified Streetworks Costs Re-opener should relate to costs incurred or expected to be incurred in the price control window, including activity that was uncertain at the time of the Business Plan

It is important that the scope of the Re-opener recognises uncertainty from the applicable starting point, which is when a network submits its business plan, not from the start date of the price control. The scope of the Re-opener should acknowledge new and amended requirements associated with the interim, albeit equally uncertain, period between business plan submission and start of the next price control.

3) Inclusion of efficient costs incurred in compliance with RPS298: Excavation of waste from street works

We are unclear from our reading of RIIO-3 Draft Determination – Gas Distribution, para. 4.60 if Ofgem considers that efficient costs incurred in compliance with RPS298 are included in the scope of the proposed GD3 Specified Streetworks Costs Re-opener. For the avoidance of doubt, we consider that they are, and that they would continue to form part of the SSWC definition clause as per GD2 “costs arising from changes to the requirements imposed on the licensee in respect of disposal of streetworks excavation waste material”.

This area continues to be uncertain from a policy and cost perspective. The Protocol will come into effect from 1st October 2025. The first six months are a trial period after which time the Environment Agency (“EA”) will review. Accordingly, there will still be uncertainty on the nature and impact of compliance requirements going into RIIO-GD3 and so remains wholly appropriate for a re-opener.

4) Addition of a close-out window

We recommend that Ofgem also provide a close-out mechanism for Specified Streetworks Costs to recognise that there may be continued cost uncertainty as the defined triggers emerge and currently unforeseen policies may be implemented over the full course of GD3. This is comparable to what is currently happening in RIIO-ED2 where a number of the licence condition triggers for the Specified Streetworks Costs Re-opener have yet to materialise or settle by the time of the Re-opener window, and as such DNOs are currently in engagement with Ofgem to propose a close-out mechanism as an additional route to manage the continued cost uncertainty.

GD specific pass-through costs

GDQ28. Do you agree with our proposal to reject Cadent's proposed pass-through to facilitate biomethane connections?

No comment.

GDQ29. Do you agree with our proposal to reject SGN's proposed pass-through for Joint Office of Gas Transporters services?

No comment.

GDQ30. Do you agree with our proposal to reject WWU's proposed pass-through for plant protection services?

No comment.

UMs we propose to reject

GDQ31. Do you agree with our proposal to not introduce a CDS Re-opener and instead fund any resubmitted workloads through NARM, if approved?

No comment.

Cost of service

GDQ32. Do you agree with our proposed use of a 'top-down' regression model?

We agree in principle with the use of a robust top-down model as a benchmark to support the assessment of efficient totex. However, we strongly disagree with the use of a single top-down model, rather than several models, and with the absence of a more granular assessment and disaggregated benchmarking as part of a toolkit approach.

There is little evidence that the model, the weights on the CSV components, or the level of pre-modelling adjustments correctly describe efficient costs for all GDNs. Given 84% of totex is assessed in this model, this results in a significant risk of inadequately defined allowances.

Using a toolkit approach, with several top-down models and a more granular, 'bottom-up' assessment, would provide a more robust outcome and higher accuracy in the round. Crucially, it would reduce the risk of a large error for any single company. This is an essential requirement of price control assessment, which needs to be accurate for every single company, not just 'on average'.

Ofgem applied a toolkit approach at ED2²¹. We believe such an approach is essential and we would expect this to continue to be applied for ED3.

A top-down approach is reasonable in that it allows for potential interactions between cost categories and allows for a GDN to build up its cost base however it sees fit so long as it remains efficient in the round. However, more granular and disaggregated approaches also have major advantages:

- 1) *Allow for the use of bespoke cost drivers and functional forms.* This in turn allows for a more accurate estimation of the relationship between costs and cost drivers, thereby improving the quality of the benchmarking.
- 2) *Ensure all drivers are relevant to the activity.* In totex models, some drivers are irrelevant for some activities within it. Disaggregated modelling can therefore result in less 'noise' being captured as (in)efficiency and reduce the risk of drivers fitting to activities they are not intended to represent.
- 3) *Provide an effective avenue for triangulation.* More granular approaches provide essential and differentiated views of efficiency and reduce the risk of significant error for any GDN/DNO that may result from relying on a single approach.
- 4) *Allow for an assessment of where a GDN may be (in)efficient.* A totex approach which assesses efficiency in the round does not reveal if there are substantial (in)efficiencies in a specific cost category. A failure to capture this information makes the benchmarking process less transparent and means vital information about where a GDN/DNO can improve is hidden from both network operators and the regulator, thereby hindering the potential for efficiency gains.

The use of 'middle-up' models were rejected on the basis that they 'demonstrated lower explanatory power (ie lower adjusted R-squared)'²². We would caution against over-reliance on R-squared and highlight that comparing R-squared values across models with different dependent variables is flawed. We also note that additional specifications, for example those that include bespoke cost drivers for the activity in question, could have been tested, and may have provided better models.

The decision around whether to consider 'middle-up' or 'bottom-up' modelling approaches should be based on principle rather than the 'goodness-of-fit' of the models. Additional metrics to define the 'goodness-of-fit' should also be considered. This is even more relevant to ED networks, in which there are significant and substantial regional differences in how networks are designed (e.g. overhead vs underground), reflecting variations beyond those addressed through traditional pre-modelling adjustments.

Pre-modelling normalisations and adjustments

²¹ <https://www.ofgem.gov.uk/sites/default/files/2022-11/RIIO-ED2%20Final%20Determinations%20Core%20Methodology.pdf>

²² RIIO-3 Draft Determination Gas Distribution Annex, p.100.

GDQ33. Do you agree with our assessment approach for IT&T?

We disagree with how the IT&T assessment was applied. However, we do not have visibility of the Grant Thornton and AtkinsRealis report and therefore cannot form a complete view. If possible, it would be beneficial for other interested parties to receive a suitably redacted view of the report.

It is important that IT systems are sufficiently 'future-proofed' to enable efficiency gains going forwards. This is highlighted in Ofgem's ongoing efficiency decision, in which it states that companies have a 'strong ambition to deliver significant technical change through their IT&T and data and digitalisation activities'²³. Ofgem goes on to state that the additional funding in this area is a factor in its decision on the level of ongoing efficiency applied.

However, less than 70% of requested IT&T costs (excluding Cyber) were carried through to the totex modelling. This seems very punitive, at odds with the commentary surrounding the ongoing efficiency challenge and is a result of the broad cost-cutting applied when a project does not meet 'green' in all dimensions of assessment.

If we have interpreted the assessment methodology correctly, a project can only be allocated 100%, 75%, 50%, 25% or 0% of requested funding. Ideally the proportion of funding allocated should be based on a technically built-up and project specific estimation of efficient costs or an estimation of the maximum cost savings a GDN could hope to achieve for the project in question. Certainly, the percentages should be reconsidered to allow for more of the requested funding under some circumstances. If, for example, the needs case and appropriateness of cost case are both met, it does not seem appropriate to then remove a quarter of requested funding – it is unlikely that any appropriate option not considered would result in such a substantial differential. Paragraph 5.165 suggests that there is no hierarchy of the three dimensions in the assessment of each project. If this is the case, there should be more emphasis on the needs case.

If the same process is to be used to assess IT&T costs at ED3, it would be prudent to let DNOs know well ahead of time how projects will be assessed against the relevant criteria such that the business cases to support IT&T projects can be built up with sufficient detail for an effective working approach.

GDQ34. Do you think we should make any amendments to the assessment framework or the thresholds employed?

See GDQ33 for our full IT&T response

GDQ35. Should any cost categories be included or excluded from the assessment?

See GDQ33 for our full IT&T response

GDQ36. Do you agree with our proposed approach to pre-modelling normalisations and adjustments?

Regional Factors

We disagree with the application of pre-modelling adjustments for regional factors. Rather, the variables describing the regional factor should be included in the model. If the coefficient is not consistent with prior expectations, it is not a reason to then reject what the data is telling us and carry out a pre-modelling adjustment antithetical to the statistical findings.

²³ RII0-3 Draft Determinations Overview Document, p.93.

There is no statistical basis for the scale of these adjustments when they are carried out outside the model. Rather, the regional wage differential observed by the ONS ASHE data is taken at face value as driving a similar difference in efficient costs across GDNs. Ideally, regional wages should prove their role in determining efficient costs through their performance as a cost driver in the model. This will also account for any correlation of regional wages with other drivers. If the regional labour index or some close proxy (e.g. density) proves to be insignificant, an assumption that the existing variables capture the effect of regional wages is reasonable.

A pre-modelling adjustment results in the following issues:

- Networks that have an adjustment applied have a portion of their costs shielded from benchmarking. Therefore, these costs are not confirmed to be efficient.
- If the applied adjustment is incorrect, it will reduce the accuracy of the models and, in turn, the accuracy of cost allowances for all companies.

Ofgem states that ‘including a density variable can, in theory, remove the requirement to making pre-modelling regional factor adjustments’²⁴. This has regulatory precedent in the water sector, with Ofwat rejecting the use of a regional wage variable in its botex models²⁵ and rejecting a cost adjustment claim for regional wages²⁶ at PR24 on the basis that density adequately accounts for regional wages. Regional wage and density are also very highly correlated. We therefore believe that the use of a density driver as a proxy for wages would be a sensible approach despite Ofgem’s initial rejection.

Company-specific factors

We agree with the proposed requirements to accept a company-specific factor adjustment, except for the materiality threshold.

While materiality thresholds are a prudent measure in general to moderate regulatory burden, we consider that if a company-specific factor is sufficiently evidenced such that the other requirements are met, then the materiality of the adjustment should not be considered. Several company-specific factors may be immaterial, but when taken together account for significantly more than 0.5% of totex.

SGN’s Isle of Wight adjustment for example, which was rejected initially on the basis of being below this materiality threshold, seems to be a clear case of a company-specific factor that should be accepted regardless of the materiality if sufficient evidence can be provided to show that additional costs are incurred and are efficient. The additional costs of supplying islands is not incurred by all GDNs.

Given the unique nature of company-specific factors, a failure to account for them can result in significant issues with the totex model – for example, changes to the coefficients and significance of the variables resulting from the additional noise inherent within the data. This can have an impact on not only the network proposing the company-specific factor adjustment, but on all networks. In short, the value of the impact on benchmarked allowances can feasibly be greater than the initial value of the adjustment.

Exclusions

At a high level, we agree that cost exclusions should take place for non-regression benchmarking, and for technically assessed projects and bespoke outputs.

²⁴ RIIO-3 Draft Determination Gas Distribution Annex, p.101

²⁵ [Econometric base cost models for PR24 final.pdf](#), p.30

²⁶ <https://www.ofwat.gov.uk/wp-content/uploads/2024/12/PR24-FD-CA19-Base-cost-adjustment-claim-feeder-model-%E2%80%93-Affinity-Water.xlsx>, sheet ‘AFW_CAC1’

For where there is read across to ED, we support in principle the exclusion for non-regression benchmarking for streetworks; and for technical assessment such as cyber opex and capex costs, PSUP capex and “*other bespoke or technically assessed costs from RIIO-GD1 and RIIO-GD2 to ensure a consistent view for comparative benchmarking*” (para 5.141).²⁷

Totex Benchmarking

GDQ37. Do you agree with our proposed approach to totex benchmarking?

We disagree with the proposed approach to totex benchmarking. This appears to be a roll-over from the GD2 approach, which may not necessarily be appropriate in the changed forward looking context.

We have specific concerns with the following:

- 1) The use of a single totex model
- 2) The reliance on just a top-down approach
- 3) The estimation technique
- 4) The use of the CSV as the single driver that differentiated between networks.

Please see our more detailed response to GDQ32 and the responses below.

GDQ38. Do you agree with the proposed level of aggregation, estimation technique and time period for our econometric modelling?

With regards to the estimation technique, we disagree with the use of OLS. The panel data structure of the data should be accounted for. A failure to do so risks rejecting significant drivers.

A fundamental assumption that underpins OLS is that errors are independent. As we have panel data, in which we observe the same GDNs over a number of years, it is highly unlikely that this assumption will be satisfied – errors within GDNs are likely to be correlated (if this is not the case, then it would be difficult to argue that the error represents (in)efficiency). While the cluster robust standard errors go some way to correcting for this, it would be preferable to move to an estimation approach that accounts for the panel dimension of our data.

A simple alternative approach to consider is random effects, again with cluster robust standard errors. This will account for the panel dimension of our data and calculate the error terms accordingly. The p-values associated with coefficients estimated by OLS can also be inflated, leading to the rejection of variables that would be significant drivers of cost when using an OLS estimator (or vice versa).

The difference between the fitted values from pooled OLS and Random Effects approaches is likely to be minimal, and it therefore makes little sense to reject the use of Random Effects in favour of Pooled OLS.

Ofgem points to a RIIO-2 document to justify the use of pooled OLS²⁷. However, the document appears to indicate that the random effects approach would be preferable from a statistical sense (Breusch-Pagan test). We are therefore unsure why the Random Effects estimator was rejected.

There are other options to consider, particularly as the length of the panel increases, including panel generalised least squares (*xtgls* in Stata) which can account for autocorrelation in our error

²⁷ See ‘Final Determinations: Technical Annex part one’ at: <https://www.ofgem.gov.uk/decision/riio-2-final-determinations-transmission-and-gas-distribution-network-companies-and-electricity-system-operator>

terms and is something to consider when our panel is longer than it is wide. Currently this is the case for the GD models.

GDQ39. Do you agree with our proposed cost drivers and approach to weighting drivers in the totex CSV?

The use of time trends is reasonable to control for exogenous factors that change over time and impact all GDNs equally.

If all GDNs are equally impacted by unobservable time-variant factors that increase costs, then it is unlikely to be a result of increasing inefficiency across all networks. Where the CSV driver does not adequately capture a step-change in workload or complexity between GD2 and GD3, it is reasonable to assume that costs will rise through GD3 relative to GD2. We note that some GDNs have argued that repex work is increasing in complexity²⁸. Removing the forecast time trend driver, which could be accounting for these complexity effects, could therefore risk inadequately funding the GD3 programme.

The CSV as the single driver that differentiates between networks is potentially problematic.

We need to be confident that it sufficiently accounts for any step-changes in workload and complexity that might increase costs in GD3 relative to GD2, i.e. it should not be static over time if we believe there is a case for a step-change in cost. As already discussed, the forecast time trend may be accounting for this to some extent. In Electricity Distribution, the top-down CSV has historically been slow to adjust to changes in workload. However, the repex synthetic cost driver and maintenance MEAV appear to account for this.

As it currently stands, the relative elasticity of each component is fixed prior to the modelling stage. We note this is an issue raised by Cadent²⁹, and while Ofgem had concerns about the proposal, we agree with Cadent that this is an issue in principle given the fixed weighting assumes that the average cost split is efficient for all networks.

It is difficult to see why all these drivers would be included in the same CSV. Where the components are not highly correlated, it would be sensible to separate them (e.g. into a 'true' composite *scale* variable and a separate composite *workload* variable) to allow the data to speak and estimate the elasticity for the component in question.

The method to derive the fixed weightings (average cost share for RIIO-GD3) appears to be reasonable, but the model will almost certainly be sensitive to the cost shares applied and some networks may deviate substantially from this split. It may therefore be beneficial to test both the separation of the components within the CSV and alternative approaches to defining the fixed weights, either as a sense check or in a triangulation approach.

Possible alternatives to the CSV include:

- Bayesian Model Averaging – Include all candidate variables, then run this approach which will eliminate drivers from a series of models and allocate weights to those models.
- Stepwise Regression – Include all candidate variables in the model directly, then remove the most insignificant one and continue until a set of significant variables is obtained.
- Lasso Regression – Include all candidate variables in the model, and the coefficient on the least important drivers will be reduced to zero.

²⁸ RIIO-3 Draft Determinations Gas Distribution Annex, p.140.

²⁹ RIIO-3 Draft Determinations Gas Distribution Annex, p.144.

- Principal Component Analysis – Used to construct a scale driver. This reduces correlated drivers into one or more uncorrelated drivers. We can select the number of components required to exceed a threshold of cumulative signal being explained (e.g. 95%).

All of these approaches have benefits and drawbacks. However, they will all provide alternative and equally valid views of efficiency without a requirement to make assumptions prior to modelling and without any endogeneity concerns beyond those that are already present in the proposed totex model.

The inclusion of density should be reconsidered.

Ofgem states that ‘including a density variable can, in theory, remove the requirement to making pre-modelling regional factor adjustments’³⁰. This has regulatory precedent in the water sector. Beyond the ability to remove pre-modelling adjustments, the inclusion of a density term may go some way to explaining complexity differences between networks and therefore differences in the assumed efficient unit costs that e.g. are used to construct the MEAV. In short, it is a clearly exogenous driver that has strong potential benefits.

Ofgem also stated that the explanatory power for specifications that included density was higher than in the base model³¹. However, the use of a density driver was rejected on the basis that it ‘consistently failed the normality test’³². In the case of the ED2 models, Ofgem stated that ‘we note that the normality of the residuals is not required for OLS to derive unbiased coefficient estimates’³³.

The normality test is arguably the least important of the tests applied, with it not being a necessary condition to satisfy the Gauss-Markov theorem and therefore OLS remains BLUE (Best Linear Unbiased Estimator) even where this condition is violated. While non-normal residuals can impact the p-values estimated by an OLS regression, clustered standard errors are robust to violations of this assumption, and as such we can still make valid inferences.

It would be beneficial to instead explore *why* the normality test might be consistently failing. There are useful tools such as a Q-Q plot that can give insight here. Stata’s own documentation states that ‘a normal quintile plot should be used with any test for normality’³⁴. Normality tests can reject normality even for small deviations that have no practical implications.

We also note that Ofgem has proposed models that fail tests within its ET and GT RIIO-3 draft determination and at ED2 final determinations – for example, the Business Support Costs model for ET and GT, which fails the heteroskedasticity test³⁵ (a test that is required to be satisfied for OLS to be BLUE), and totex model 3 and the Faults and ONIs model at RIIO-ED2, both of which fail the normality test³⁶.

It would be beneficial for Ofgem to consider a more mechanistic approach to rejecting or accepting models when tests fail, as well as outlining what it considers to be the relative importance of each test.

GDQ40. What are your views on our proposed workload adjustments to cost drivers?

³⁰ RIIO-3 Draft Determination Gas Distribution Annex, p.101

³¹ RIIO-3 Draft Determinations Gas Distribution Annex, p.102.

³² *ibid.*

³³ RIIO-ED2 Final Determinations Core Methodology Document, p.363.

³⁴ [rsktest.pdf](#), p.2

³⁵ RIIO-3 Draft Determinations Electricity Transmission Annex, p.184.

³⁶ RIIO-ED2 Final Determinations Core Methodology Document, pp.361-364.

We agree with workload adjustments being carried out in principle where this is factored into any wider regulatory mechanisms (e.g. PCDs, UMs). Ofgem's approach appears to be consistent with these requirements.

However, where a workload driver is available, Ofgem's approach is to reduce both the workload and make a commensurate adjustment to costs in the pre-modelling stage. It would be preferable to use the submitted costs and volumes to generate the model, then make a post-modelling adjustment by substituting the adjusted workload driver into the regression equation. This will give a view of the necessary cost adjustment driven by the data and will better account for e.g. 'economies of scale' in workload.

A potentially significant issue with totex benchmarking is that it can be difficult to disentangle efficient costs and non-delivery. Therefore, an assessment of workload volumes, and a subsequent adjustment to the workload drivers in the model, is necessary to enable the estimation of true cost efficiency.

Non-regression analysis

GDQ41. Do you agree with our approach to non-regression benchmarking analysis?

We agree that where costs are not sufficiently comparable across DNOs or sufficiently well represented by the drivers in the totex models that these costs should be assessed separately and broadly agree with the use of engineering assessment to ensure the correct volumes of work. Comparison with historical run rates and unit costs is also reasonable but there must be scope for allowances above the historical benchmark where the additional costs are suitably justified.

Catch-up efficiency challenge

GDQ42. What are your views on our proposed approach to applying the catch-up efficiency challenge?

We do not agree with the proposed approach to applying the catch-up efficiency challenge. We believe that an upper quartile challenge is proportionate and is sufficiently stretching.

We also disagree with the claims that the GD3 model is equally as good as at GD2. It is not sufficient to base the 'goodness-of-fit' on the adjusted R-squared value in isolation, and we should consider additional approaches that provide a better comparison between datasets. For example, prediction accuracy metrics such as root mean squared error ("RMSE") or mean absolute percentage error ("MAPE") may be beneficial to robustly test the differences in model quality, particularly where combined with a cross-validation approach. While we do not use these models to make out-of-sample predictions, any valid model should be able to adequately predict out of sample.

Other important checks include sensitivity analysis following the removal of individual years and GDNs to ensure that the model coefficients are not being altered by the presence of outliers, and tests of autocorrelation.

The catch-up challenge for the non-regressed costs should also be set separately to the catch-up challenge on the totex regression. This would be consistent with the view that these costs are not well represented by the variables included in the totex CSV. If we cannot model these costs within totex, they should also not be bound by the estimated efficiency from that same totex model.

GDQ43. Do you consider that the efficiency frontier should be set based on historical performance?

We disagree that the efficiency frontier should be set based on historical performance in isolation.

Ofgem note that Ofwat use efficiency derived from the last 5 years of actual data to set the catch-up challenge.³⁷ This is correct; however, there are significant differences between Ofwat and Ofgem's approaches to cost benchmarking, including but not limited to:

- The separation of base and enhancement expenditure (Ofwat) vs a totex approach (Ofgem).
- The use of many models covering top-down and middle-up levels of aggregation (Ofwat, base costs) vs the use of a single top-down model (Ofgem).
- Using only historical data (Ofwat, base costs) vs the use of historical and forecast data (Ofgem) to produce benchmarked costs.
- The use of an upper quartile benchmark (Ofwat, base costs) vs the use of a glide-path to the 85th percentile (Ofgem).

These represent significant differences in approach, particularly the separation of base and enhancement expenditure, the latter of which tends to be responsible for most of the increases in submitted costs in the forecast period. Moving to a historical efficiency benchmark to align with Ofwat would first require a consideration of the substantial differences in the wider approach.

For ED3, we are expecting a step change in workload and significant differences between the two price control periods. Therefore, basing a catch-up challenge solely on a historical price control would not be appropriate, and the extent to which it is used needs to be considered in the context of the wider cost assessment framework and model performance.

Technically assessed costs

GDQ44. Do you agree with our assessment of technically assessed costs and bespoke outputs?

We agree with the mechanisms used to assess costs that are highly uncertain, unique or exhibit significant variation across GDNs, and support the removal of these costs from the totex model.

We note that materiality has been used to assess whether a cost should be modelled or technically assessed. We believe that if larger costs are not suitable for modelling, then neither are smaller costs within the same cost category.

As an example, LTS diversions were removed from the regression model. If the larger projects meet the criteria for removal, then the smaller projects will cause issues if retained. It should be ensured that multiple small LTS diversions do not sum to become a material issue. It would also be prudent to test for changes to the totex model following the removal of these smaller projects.

Disaggregation of allowances

GDQ45. What are your thoughts on our approach to disaggregating cost allowances?

It is essential that cost allowances are disaggregated appropriately, especially where there are specific mechanisms such as PCDs and volume drivers associated with those activities.

The apportionment of total allowances needs to be undertaken using an approach that reflects the workloads that Ofgem are seeking to fund. Network operators need appropriate visibility of all price control mechanisms and how they operate together to ensure decisions such as this can be properly understood and debated ahead of final determinations.

³⁷ RIIO-3 Draft Determinations – Gas Distribution, para 5.281.

Totex Incentive Mechanism (“TIM”)

GDQ46. Do you agree with our proposed TIM sharing factor?

We agree with the proposal to maintain existing TIM sharing rates from GD2. We are aligned with Ofgem that a strong sharing factor is a key driver of cost-efficient delivery, maximising value for customers.

We agree that the majority of activities in gas distribution are well understood and repeatable, similar to electricity distribution. Therefore, we agree that that delivery and procurement risks are well within the capability of the distribution network companies to manage effectively and hence a suitably strong incentive mechanism should be maintained to incentivise that. We consider the 50% sharing factor to provide a sufficient incentive to seek cost efficiencies and ensures companies remain both motivated and accountable for delivering optimal outcomes within the agreed cost framework.

This consistent set of sharing factors across all categories of investment also avoids ‘gaming’ or unintended consequences for customers, ensuring both the optimal choice of network intervention (e.g. opex vs capex solutions) as well as the efficient delivery of the best solution identified.

In electricity distribution, applying totex incentivisation mechanisms to unit costs will unjustly penalise DNOs, and dealing with investment categories differently could risk incentives and distortions that lead to the detriment of consumers.

In summary, the consistency of sharing factor across all costs combined with the 50% sharing factor, provides a clear, robust framework that drives efficiency, protects customers, and supports the delivery of high-quality outcomes. **Due to the similarities between gas and electricity distribution highlighted here, we therefore believe that Ofgem should seek to maintain this in ED3 as well.**

Annex 3 - Response to ET Annex

Summary of key issues raised in our response to question below

We welcome the:

- Development of an incentive framework for timely connections, and Ofgem's recognition that a new approach may be needed and opportunity for further engagement to discuss. We also support the proposal for a symmetrical connections incentive framework.
- Introduction of a mechanisms that recognises the value of strategic headroom in principle, but this must incentivise the release of headroom at the right place and time.
- Idea of an incentive to encourage network and system operators to minimise losses.
- Suggestion of a reward only delivery Innovative Delivery Incentive and the overall direction of proposed design of the incentive.
- Proposed approach to several specific elements calculating Cost of Service, including use of qualitative assessment for a number of activities.
- Ofgem's review of target setting for Energy Not Supplied and overall review of targets. Ofgem should reconsider its tightening of targets, and review targets for exceptional events in particular.

We do not think it is appropriate to:

- Design a connections incentive framework linked to project-by-project delivery targets.
- Adopt a one size fits all approach to a connections incentive framework, this must instead reflect the unique challenges and expectations of different customer segments.
- Apply delivery accountability related accountability mechanisms to every investment. These mechanisms should only apply to a small, limited number of strategic and high value projects with long lead times. Investments with shorter lead times or inherent uncertainty should be covered by UMs, with the majority of Totex sitting in baseline allowances.
- Apply a stepped TIM approach, a stance shared by Ofgem. A strong TIM should be retained and be deployed across all categories of network expenditure and apply sharing rates are consistent in approach across DNOs and are set as they are currently in ED2.
- Apply the outlined approach to several specific elements calculating Cost of Service, in particular the proposed IT&T assessment approach and the CAI UIOLI allowance at 10% set on historical (and non-applicable ED) benchmarks.

ET ANNEX QUESTIONS

Outputs and incentives

Infrastructure fit for a low-cost transition to net zero

ETQ1. Do you have any views on our proposed approach to which projects will be in scope of the CSNP-F ODI-F, especially projects submitted through the Load Re-opener?

We support the overall objective of timely delivery and recognise Ofgem's challenge in striking the right balance between delivery certainty, given the step-up in activity required to support Net Zero and current concerns around under-delivery.

However, we would like to iterate that any delivery related accountability mechanisms must focus on driving efficient customer outcomes without stifling the necessary adaptability for network companies within the period. The incentive should only apply where there is clear consumer value

in accelerating the project relative to a focus on cost efficiency. The approach should also be flexible enough in its application that it can be tailored and balanced to the sources of consumer value for each type of project.

Given the optionality of interventions and complexity of infrastructure in electricity distribution, we think that mechanisms that hold DNOs to account for delivery should be limited to a small number of strategic, high value projects with long lead times in ED3. We believe that the majority of totex should sit in baseline allowances and only investments which have shorter lead times or have a high level of uncertainty around need should be covered in the scope of uncertainty mechanisms (“UMs”). This would allow DNOs to retain the adaptability to respond to changing customer needs, while ensuring DNOs are appropriately incentivised to develop innovative and, cost-efficient solutions.

The lack of clarity over which projects will be in scope makes it difficult to judge the CSNP-F Delivery ODI-F incentive’s risk and reward balance at this stage for ET. Should Ofgem intend to propose similar delivery related incentives for “strategically important” projects in ED3, Ofgem must provide clear guidance on the criteria and eligibility for projects to classified under this category of projects. We also reject the use of deterministic earliest in service dates (“EISD”) rather than dates adjusted to take account of delivery risk as we believe this exposes network companies to asymmetric downside risks. For ED3, Ofgem must also clearly outline which projects it intends to classify under UMs and which it intends to classify under totex. We would welcome further discussion with Ofgem on achieving the balance between use of UMs with a robust and forward-looking baseline allowance.

ETQ2. Do you agree with our proposed approaches to determining a Target Delivery Date (“TDD”) for CSNP-F Outputs and non-CSNP-F Outputs?

See [ETQ1](#) for our full response.

ETQ3. Do you agree with our proposed inclusion of a minimum availability standard in the CSNP-F ODI-F?

See [ETQ1](#) for our full response.

ETQ4. Do you agree with our proposed approach to Delay Events in the CSNP-F ODI-F?

See [ETQ1](#) for our full response.

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

See [ETQ1](#) for our full response.

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

We are supportive of the need for development of an incentive framework and welcome Ofgem’s recognition that a different approach from previous price controls may be needed to facilitate this. We believe that a replacement of the existing connections incentive framework with a new incentive framework is similarly needed for connections at ED3 to deliver efficient, customer focused outcomes. We discuss in further detail below some lessons that can be applied to the ED3 context.

Firstly, we support the proposal for a symmetrical connections incentive framework as an effective way to drive improvements across all connection services. We also agree that a higher level of reward compared to penalty reflects the reality that the proposed changes to connections carry a larger risk of underperformance, requires large scale changes to processes and to accelerate build

programmes.

On Option 1, we do not believe an incentive framework linked to project-by-project delivery targets (for example, linked to projects in the tRESP/RESP) is appropriate for electricity distribution. Unlike transmission, distribution investments typically have shorter lead times and are planned in detail within the price control itself. Hence, pre-defining projects for delivery or their delivery dates risks promoting an inefficient approach to network planning (with the exception of a small number of strategic, high value projects with long lead times). For example, this could lead to delivering of connections which are no longer required or by the original date which is earlier than now required. We also expect any process that could be established to allow for changes in required connections to be very burdensome for DNOs and Ofgem to manage.

On Option 2, while we support the introduction of a mechanism that recognises the value of headroom released in principle, the design must incentivise the release of headroom in the right place and at the right time. Without this locational and temporal focus, the framework risks rewarding activity that delivers limited customer value.

We would also like to highlight the broad variety of different customer segments within connections for electricity distribution, each with distinct priorities and needs. Therefore, a one-size-fits-all approach is unlikely to be effective. Instead, a holistic incentive framework with improved segmentation is needed to better reflect the unique challenges and expectations of different customer types associated with connections. This will drive more tailored services and better outcomes across the full range of connections.

In summary, we believe that any suggested proposal must support efficient network delivery and flexibility, while driving efficient and tailored customer outcomes across diverse customer segments. Ofgem should also provide early clarity on its intended proposals such that there is sufficient time to co-develop metrics and the design of incentives with industry. Ofgem can do this for ED3 by signalling the need for a new connections incentive framework in its upcoming SSMC. This would allow DNOs and the wider industry sufficient time to work with Ofgem on developing an appropriate incentive design that will also address the issues and concerns raised in the Connections End-to-End Review, ensuring the developed framework is efficient, deliverable, and aligned with customer outcomes. We welcome the opportunity to further engage with Ofgem on our proposal for a new connections incentive framework ahead of the ED3 SSMC.

ETQ7. Do you have any further considerations on our chosen direction for a RIIO-ET3 Connections Capacity ODI-F, including detail on how the targets could be built up?

See [ETQ6](#) for our overarching views on the design of a new connections incentive framework.

ETQ8. Do you agree with our proposed design of the Community Benefit Funding pass-through mechanism?

No comment.

ETQ9. What are your views on our consultation positions for the TOs' EAP commitments in RIIO-ET3?

No comment.

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?

No comment.

ETQ11. Do you have any views on our proposed approach to biodiversity funding, notably whether it is appropriate or not for consumers to fund biodiversity outputs beyond legislative requirements?

No comment.

ETQ12. What are your views on our consultation position for the Insulation & Interruptions Gas ("IIG") ODI-F target methodology in RIIO-ET3, in particular the bespoke treatment of SHET?

No comment.

ETQ13. Do you consider that we should use the IIG Exceptional Event mechanism to manage potential issues with historical IIG inventory data? If so, why?

No comment.

ETQ14. What are your views on our consultation position for the SF6 Asset Intervention PCD in RIIO-ET3?

No comment.

Secure and resilient supplies

ETQ15. What are your views on our proposals for the RIIO-ET3 Energy Not Supplied ("ENS") ODI-F, including the two different target setting methodologies we have shared?

We support Ofgem's review of target setting and recognise the need to have an incentive package that is calibrated to provide the right overall balance of risk and return. However, Ofgem's 'minded to' choice of methodology has been justified on the basis that the resulting targets delivers the right level of stretch. This seems a narrow rationale for decision making; especially given the context that current network reliability levels are already very high. Tightening or ratcheting performance targets would also yield diminishing returns as more effort and financial resources would be required to deliver on those targets, which may not necessarily be in the consumer's interest.

Furthermore, we believe the current thresholds and target setting for exceptional events needs to be reviewed to cater for the increasing frequency of single day and multiple day extreme weather events. This review should also consider that the average day is becoming more taxing on network assets, which could lead to an increase in supply interruptions.

In relation to the choice of target setting methodology, this should be independent of the order of magnitude of input values. We recognise Ofgem is awaiting a view on the value of the Value of Lost Load ("VoLL") from the ENA project; however, the value of VoLL should not be a driver of methodological choice. If the use of VoLL as a measure of the value consumers place on the reliability of electricity supply is the most appropriate metric to include in the target setting methodology, this should be impartial to the actual level of VoLL determined.

We support the use of an updated VoLL valuation and for the ongoing work with the ENA to develop this valuation for use in the RIIO-3 price controls. With regard to RIIO-ED3, we would welcome upfront clarification from Ofgem as to where and how Ofgem intend to make use of this

consumer valuation of network reliability in the regulatory framework (e.g. both in business plan assessment and in-period mechanisms).

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

No comment.

ETQ17. Do you agree with our proposal to introduce a clawback mechanism in the SO:TO ODI-F for enhanced services requested that are unfulfilled?

No comment.

ETQ18. Which of the three options for managing differing approaches between TOs do you think would work most effectively in the SO:TO ODI-F?

No comment.

ETQ19. Do you agree with the need to introduce an Innovative Delivery Incentive to drive the five behaviours that we've identified and do you consider that there are any behaviours that are missing?

We support Ofgem's proposal to introduce a reward-only Innovative Delivery Incentive focusing on delivery by incentivising the key behaviours that help drive change and deliver outcomes that consumer value.

We also support the five behaviours identified by Ofgem. The introduction of a similar incentive for ED3 (with potentially a few changes to the behaviours considered) would also benefit electricity consumers and the DNOs by allowing the latter to put forward innovative ideas that drive real change in the network. This is needed in the absence of any other innovation incentive beyond NIC/NIA funding.

ETQ20. What are your views on our proposed design of the Innovative Delivery Incentive?

We are generally supportive of the proposed design of the Innovative Delivery Incentive.

However, we believe the incentive should focus on the delivery of outcomes that specific actions and behaviours aim to achieve. For example, cost reductions at both project and system-wide levels, faster project delivery, and enhanced environmental or societal benefits.

With regards to measuring success, we understand the complexity of quantifying some of these outcomes, however a framework such as the CVF (proposed by NGED) and associated metrics may offer a solution to this challenge. The use of a quantitative method would then complement the Panel's assessment, which would lower the degree of subjectivity and would allow for more flexibility in terms of setting quantitative ODI-F on an ex-ante basis.

With regards to the threshold for offering rewards, the consumer benefit would need to be much lower than the £10m threshold suggested by Ofgem for the TOs for ED3.

We are also supportive of the incentive being reward-only and should be of sufficient materiality to drive strong outcomes for consumers.

ETQ21. What are your views on how TOs could demonstrate 'consumer value' to justify rewards under the Innovative Delivery Incentive?

Please refer to our answer to ETQ20 above.

We would welcome the opportunity to discuss this further with Ofgem and other DNOs ahead of

SSMC.

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

No comment.

ETQ23. What are your views on our consultation position for the LEI UIOLI in RIIO-ET3?

No comment.

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?

No comment.

Managing uncertainty

Infrastructure fit for a low-cost transition to net zero

ETQ25. Do you agree with our proposal to retain the APM for RIIO-ET3 in its current form?

No comment.

ETQ26. Do you agree with our intended approach to Pre Construction Funding ("PCF") in RIIO-ET3?

No comment.

ETQ27. Do you agree with our updated definition of early enabling works ("EEW")?

No comment.

ETQ28. Do you agree with our proposed approach to PCF on tCSNP2 projects?

No comment.

ETQ29. Do you agree with our proposed scope, re-opener windows and materiality threshold for the Load Re-opener?

No comment.

ETQ30. Is it clear how the different Load Re-opener tracks operate, and do you agree with the rationale for introducing them?

No comment.

ETQ31. Do you agree with the scope and materiality threshold for the Load UIOLI?

No comment.

ETQ32. Do you agree with our proposed design of the generation and demand connections volume driver mechanisms?

No comment.

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

We do not agree with the stepped TIM approach to volume drivers as part of general totex. NGET has expressed its views for why stepped TIM is not suitable for ET. The optionality of interventions and complexity of infrastructure in ED3 provides further reasoning why stepped TIM is not suitable for ED3. This has already been acknowledged in Ofgem's ED3 Working Groups to date.

However, we do agree it is fundamentally important to retain the principle of Totex incentivisation, so that DNOs are encouraged to innovate on the best mix of Capex and Opex solutions. More specifically for ED3:

- a strong TIM should be retained, with sharing rates set as they are currently; this would continue to ensure sufficient focus on cost efficient delivery and in natural tension to increasing value of outputs;
- the sharing rates should not be set in relation to historical considerations and should be consistent in approach across the DNOs and must be designed to avoid 'gaming' or unintended consequences for customers by ensuring that individual factors and incentives establish a strong incentive package;
- TIM, as the existing mechanism for Totex incentivisation, should be designed to incentivise DNOs in relation to both the efficient choice of network solution as well as the efficient delivery of the best solution identified;
- TIM should be deployed across all categories of network expenditure, including re-openers. No elements should be left outside of the scope of either the TIM and other agreed Totex incentivisation mechanisms, or be subject to separate arrangements (such as have potentially been suggested in relation to the application of a unit cost efficiency approach); and
- Other areas of incentivisation should be considered beyond TIM, such as incentives on capacity and headroom delivery, innovative delivery, and climate resilience, with associated ODI-F, where applicable.

ETQ34. Do you agree with our proposed methodology for excluding atypical connection projects from the regression model?

No comment.

ETQ35. Do you agree with our proposal to use the Load Re-opener (above £25m) and Load UIOLI (below £25m) to fund projects that fall outside ± 1.5 standard deviations from the regression model?

No comment.

ETQ36. Do you agree with our treatment of RIIO-ET3 Volume Driver crossover projects and our approach to allowance profiling?

No comment.

ETQ37. Do you agree with the proposed scope of the CSNP-F Re-opener?

No comment.

ETQ38. Do you have any views on our proposed design of the CSNP-F Re-opener?

No comment.

ETQ39. Do you agree with our proposed approach to T2/T3 crossover projects?

No comment.

ETQ40. Do you have any views with our proposed approach to Independent Technical Advisor (“ITA”) project eligibility?

No comment.

ETQ41. Do you have any views on the appropriate information sharing boundaries between the TO and an ITA, and how any conflicts could be managed?

No comment.

ETQ42. Do you agree with our proposed Carbon Compensation UIOLI to fund carbon offsetting in RIIO-ET3?

No comment.

ETQ43. Do you have any views on our proposal to reject these two environmental UMs?

Our overarching views on the UM framework are included in the response to the Overview document.

Secure and resilient supplies

ETQ44. Do you agree with our proposal to introduce a Non-Load Reopener to address funding gaps in shared-driver projects where the load-related need no longer exists, but an asset health requirement remains?

Our overarching views on the UM framework are included in the response to the Overview document.

ETQ45. Do you agree with our proposed design of the Non-Load Re-opener?

No comment.

Cost of service

ETQ46. Do you agree with our proposed approach to load and non-load capex assessment, i.e. the combination of unit cost benchmarking and engineering review? How can the use of expert assessment be further improved?

No comment.

ETQ47. Do you agree with our approach for unit cost benchmarks? Do you have any views on how the unit cost benchmarking methodology can be improved?

No comment.

ETQ48. Do you agree with our proposal to roll-up unit cost benchmarks and set the benchmarks at the scheme level?

No comment.

ETQ49. Do you agree with our continued use of the Project Assessment Model (“PAM”)?

How can this be further improved?

No comment.

ETQ50. Do you agree with our proposed approach for setting the Risk & Contingency (“R&C”) allowance? If not, why? Please outline any challenges that you think might be present with our proposals on the R&C allowance and the interplay with the TIM.

No comment.

ETQ51. Do you agree with our assessment approach for Vehicles and Transport and Non-operational Property? If not, how do you consider we should assess these costs?

We agree with the use of qualitative assessment for Vehicles and Transport and Non-operational Property. With the step change in investment requirements as we move towards net-zero, it is important to re-consider for all cost categories whether historical costs and quantitative assessment are a fair reflection of the future for ET and ED alike. It is good to see that qualitative assessment has been undertaken here.

ETQ52. Do you agree with our assessment approach for IT&T? Do you think we should make any amendments to the assessment framework or the thresholds employed? Should any cost categories be included or excluded from the assessment?

We disagree with how the IT&T assessment was applied. However, we do not have visibility of the Grant Thornton and AtkinsRealis report and therefore cannot form a complete view. If possible, it would be beneficial for other interested parties to receive a suitably redacted view of the report.

It is important that IT systems are sufficiently ‘future-proofed’ to enable efficiency gains going forwards. This is highlighted in Ofgem’s ongoing efficiency decision, in which it states that companies have a ‘strong ambition to deliver significant technical change through their IT&T and data and digitalisation activities’³. Ofgem goes on to state that the additional funding in this area is a factor in its decision on the level of ongoing efficiency applied.

However, the punitive cost reductions appear to be at odds with the commentary surrounding the ongoing efficiency challenge and is a result of the broad cost-cutting applied when a project does not meet ‘green’ in all dimensions of assessment.

If we have interpreted the assessment methodology correctly, a project can only be allocated 100%, 75%, 50%, 25% or 0% of requested funding. Ideally the proportion of funding allocated should be based on a technically built-up and project specific estimation of efficient costs or an estimation of the maximum cost savings a GDN could hope to achieve for the project in question. Certainly, the percentages should be reconsidered to allow for more of the requested funding under some circumstances. If, for example, the needs case and appropriateness of cost case are both met, it does not seem appropriate to then remove a quarter of requested funding – it is unlikely that any appropriate option not considered would result in such a substantial differential. Paragraph 5.165 suggests that there is no hierarchy of the three dimensions in the assessment of each project. If this is the case, there should be more emphasis on the needs case.

If the same process is to be used to assess IT&T costs at ED3, it would be prudent to let DNOs know well ahead of time how projects will be assessed against the relevant criteria such that the business cases to support IT&T projects can be built up with sufficient detail for an effective working approach.

ETQ53. Do you agree with our quantitative assessment approach, ie unit cost and annual average costs using RIIO-ET2 and RIIO-ET3 data? If not, how should we carry out the quantitative assessment?

We disagree with the broad assessment approach. We understand the need to apply the lower of ET2 and ET3 unit costs where there is no evidence to support the increase in general, but for assets where there has been significant change, there needs to be a greater consideration of why costs may have seen a significant increase between ET2 and ET3 rather than reverting to an annual average cost approach.

Any available evidence submitted by TOs should be considered here. This is particularly true in the case where historical costs are not suitable for benchmarking for a single TO.

ETQ54. Are there any Network Operating Costs (“NOCs”) categories or sub-categories that we should have excluded or included from quantitative assessment? If excluded, how should we assess them?

No comment.

ETQ55. Do you consider that the 25% and £1m thresholds are appropriate for the quantitative assessment of NOCs? If not, what should the thresholds be and why?

No comment.

ETQ56. Do you support our qualitative assessment framework for NOCs other (Vegetation Management, Ongoing environmental costs, Small Tools Equipment Plants & Machinery (“STEPM”) and company bespoke NOCs other costs) and Flood Mitigation? If not, how should we assess these costs? Are there any additional costs that we should include in this framework?

We agree that quantitative and engineering assessments should be attempted first, and that a qualitative assessment should be the last option. We also agree with allowing costs that are immaterial or lower/unchanged relative to the previous price control as a proportionate step prior to carrying out the qualitative assessment of more material cost categories.

ETQ57. What are your views on the proposed blended approach to CAI? Do you agree with the weights applied?

We are not opposed to a blended approach to setting CAI allowances in principle. Using multiple methodologies to set allowances or to sense-check against the primary methodology is not unreasonable to ensure a fair approach for all networks.

However, from an ED perspective, we believe that it would be appropriate to include forecasts in a regression model in the ED context given the higher number of DNOs.

ETQ58. Do you agree with the CAI UIOLI allowance to support TOs growth ahead of CP2030? What are your views on the scope and chosen level of CAI UIOLI funding?

We disagree with setting the CAI UIOLI allowance at 10% based on historical benchmarks from ED2. This would be an inappropriate level for ED3; at a minimum the ED2 model would need to be updated to accommodate new data. It is even less suitable to set ET3 allowances, given ED and ET networks, scale and size of projects and cost structures are very different.

ETQ59. Do you agree with our proposal to remove the opex escalator for RIIO-ET3?

We cannot comment on the proposed mechanisms for ET3. However, we continue to advocate for and emphasise the ongoing requirement for a continued automatic mechanism in ED3, akin to the current Indirect Scaler, where an increase in capex programmes continuing through UMs drives the ongoing and essential need for associated Opex delivery and support costs.

ETQ60. Do you agree with our approach to Business Support Costs (“BSC”)? How do you think this could be improved?

As per CAI, we are not opposed to a blended approach to modelling BSC costs where appropriate, however from an ED perspective, it would be preferable to include forecast costs in the regression analysis in the first instance.

ETQ61. Do you agree with our proposal to introduce a BSC Re-opener? What are your views on the proposed design? What alternatives to a BSC Re-opener do you see as viable?

We welcome the principle of the BSC re-opener, which recognises BSC costs as a contributor and enabler which proactively support network growth. However, we have concerns (recognising only limited information is provided in these DD) with the high thresholds proposed, which may limit the re-opener's ability to be actioned. We suggest that a more automatic and simpler mechanism would be more appropriate, to avoid regulatory burden and complexity.

ETQ62. Do you agree with our approach to Modern Equivalent Asset Value (“MEAV”)? What do you think we could do to improve its robustness?

The calculation of MEAV should be dependent on the context in which it is being used. Ofgem has retained the calculation of MEAV as the cost of replacing every operational asset on a TO’s register. This may be useful in the prediction of some costs, but less useful for others.

This does not necessarily correspond to the ongoing costs associated with each asset. A cable, for example, has a very long asset life relative to an overhead line. Therefore, the annual costs associated with the overhead line asset is likely higher than for the cable asset – for example, the overhead line will incur costs related to tree cutting, and it is more likely to be damaged by inclement weather.

It would also be appropriate to allow for unit costs to vary between price controls where new assets within the same category are being widely adopted – for example, SF6 free switchgears.

ETQ63. Do you agree with our approach to operational training? What else should be considered within this approach?

We agree that operational training and wayleaves do not have the same cost drivers as core CAI, and should therefore be removed from regression analysis. This is in contrast to the approach at ED2 which included Wayleaves and Operational training alongside Core CAI. Considering ED2 data, a Core CAI model appears to be more performant than the model that includes Operational Training and Wayleaves.

Operational Training is particularly important in terms of ensuring that increased investment in the network can be achieved. We are pleased to see that Ofgem considered a wide variety of evidence in setting Operational Training allowances and would urge Ofgem to follow a similar approach at ED3.

ETQ64. Do you agree with our approach on insurance? What methodological improvements can we make?

We disagree with the approach to insurance. Insurance costs will depend on both the assets owned by the network, and wider market factors that are outside of company control. Insurance providers will also consider many more factors than just network length when setting their prices. The insurance allowances should consider any evidence submitted by networks first and foremost. A benchmarking model should be a last resort and only used to set allowances for networks that have not submitted sufficient evidence to convince Ofgem that the costs are efficient.

ETQ65. Do you agree with our approach to pension scheme admin and PPF levy? What else should be considered within this approach?

Due to inconsistencies in costs submitted by TOs, these costs were separately assessed against historical trends. This seems to be a reasonable approach.

ETQ66. Do you agree with our assessment approach for Physical Security? If not, how should we assess these costs?

We disagree with the approach to Physical Security.

The quantitative assessment takes the lower of ET2 and ET3 unit costs. This is overly simplistic, and there should be a consideration of why ET3 unit costs may be higher, particularly where ET3 unit costs are higher than ET2 unit costs for all TOs. TOs should be invited to submit evidence as to why unit costs are higher in ET3 to ensure that ET2 unit costs are truly reflective of ET3 unit costs before moving on to any quantitative assessment.

We believe that a qualitative approach would be a better option to properly account for company-specific factors and an increasingly evolving security landscape.

ETQ67. Do you have any views on our engineering assessment of the thematic issues we have identified?

No comment.

ETQ68. Do you agree with our approach to maintaining future optionality through ensuring licensees use extendible designs?

No comment.

ETQ69. Do you agree with our drive to reduce the use of F-Gases as far as possible and do you agree with our intent to fast track selected AIS solutions to minimise the use of F-Gases now and in the future?

No comment.

ETQ70. Do you agree that the TIM in RIIO-ET3 should have a primary focus on risk management and a secondary focus on cost efficiency, and that doing so would be in the interests of consumers?

Please see our response to [ETQ33](#) for our overarching views on TIM.

ETQ71. Do you agree with our proposed 'stepped' design of the RIIO-ET3 TIM, including the values that we have used to set each 'step'?

Please see our response to [ETQ33](#) for our views on stepped TIM, and TIM in general.

ETQ72. Do you agree with our proposal to include ASTI within this TIM approach?

No comment.

Annex 4 - Response to Overview Annex: Real Price Effects (“RPEs”) and Ongoing Efficiency (“OE”)

Summary of key issues raised in our response to question below

- We **disagree** with the proposed approach to RPEs and do not consider it sufficiently addresses the emerging issues with the RIIO-2 mechanisms.
- We present views on the selection of indices, index weightings, the continued use of a notional cost structure and the application of a materiality threshold for ED.
- With regard to ED3, Ofgem should be open to consulting on a wide range of options for managing input price risk at ED3 and consider this as separate to these other RIIO-3 controls.
- We **disagree** with the proposed approach to the calculation of Ongoing Efficiency.
- We present evidence relating to methodological considerations, choice of comparator sectors (with reference to the inclusion of manufacturing and Information and Communication), choice of time period (with concern on over-reliance of pre-2008 productivity data) and other qualitative considerations. Our review of the evidence suggests that the 0.7% taken as the lower bound of Ofgem’s range is stretching and grounded in the EU KLEMS evidence and qualitative considerations.
- Updated available evidence should be considered to set the appropriate OE target for ED3.

OVERVIEW ANNEX QUESTIONS

OVQ18. Do you agree with our proposed approach to RPEs?

We disagree with the proposed approach to RPEs and do not consider it sufficiently addresses the emerging issues with the RIIO-2 mechanisms. There are still significant issues with both the indices proposed and the weightings applied, and it is disappointing that Ofgem have rejected company proposals for proposed true-up mechanisms to reduce RPE risk that network companies cannot control.

With regard to ED3, Ofgem should be open to consulting on a wide range of options for managing RPE risk at ED3 and consider this as separate to these other RIIO-3 controls.

The ENA has submitted an independent report from Oxera³⁸ to Ofgem to assess the effectiveness of the RIIO-ED2 RPE mechanism, which is very similar to that has continued to be applied in the RIIO-3 draft determination, particularly for GDNs. The primary issues considered are:

- **Basis risk** – an issue that materialises when outturn unit cost changes experienced by networks are materially different to changes in the selected RPE indices.
- **Changing supplier margins** – Increases in supplier margins and other costs pressures incurred in the supply of intermediate goods that do not move in line with the growth rate of the input-based indices used. This is particularly problematic in the context of global supply chain constraints.
- **Composition risk** – where the share of each cost category (labour, materials, etc.) changes over the price control period.

There are a number of changes that Ofgem should consider between RIIO-3 Draft and Final

³⁸ Oxera for the Energy Networks Association (August 2025), *Review of the ED2 RPE mechanism*.

Determination that would go some way towards addressing these concerns for networks.

Index Selection

For consideration in ED, Ofgem should include material indices that track 'output' unit costs (e.g. cables, transformers, pipes) not 'input' unit costs (e.g. plastic, copper, aluminium) to better reflect the real price exposures networks actually experience.

Whilst we are not able to comment on how well the proposed indices would track RIIO-3 costs for GD, GT and ET operators, what is apparent is Ofgem's approach to maintain the use of 'input' based materials indices, i.e. raw materials. Networks rarely purchase raw materials (e.g. plastic, copper, aluminium) but instead primarily purchase intermediate goods (e.g. cables, transformers, pipes), of which the raw material inputs tracked in the RPE indices are only a small part. It would be more cost-reflective to move to a set of indices that considers the price of the 'outputs', e.g. indices that directly describe transformer, cable or pipeline costs to better describe the cost changes that networks actually face in the materials they procure. Many infrastructure sectors across the economy, including the energy, water, transport, and construction sectors, are gearing up investment. Competing infrastructure projects inside and outside the sector are expected to result in significant supply chain pressures, with higher prices and delivery risk. In this context, the implementation of RPE reconciliation based on input price indices that are external to the sector, carries a risk of inaccuracy, namely that these indices do not adequately reflect the supply chain challenges and resulting cost pressure within our sector.

We consider the selected labour indices are more reasonable. However, there are additional costs of labour that are not reflected in the AWE indices. The increase to National Insurance Contributions is the clearest example of this. The mechanism should reflect any changes in the cost of employment, rather than being restricted to wages alone.

Index Weighting and Notional Cost Structure

In the RIIO-3 mechanism for GD, Ofgem should consider using company-specific weightings to construct the RPE mechanism. It already does this for GT and ET. Ofgem should also consider the use of dynamically weighted indices and cost structures, which could update in each year.

Ofgem has retained the use of a notional cost structure for GDNs. However, efficiency has already been assessed prior to the application of RPEs against each GDN's individual cost structure, i.e. the modelled benchmark considers existing cost structures so if a company is efficient against the modelled benchmark, its cost structure – which could deviate substantially from the notional cost structure – must by extension also be considered efficient.

Ofgem states that "using a notional cost structure avoids potentially rewarding inefficient cost structures". However, it could just as easily penalise efficient cost structures. The RPE mechanism should not impose a view of efficiency beyond a network's ability to procure inputs at or below the market rate.

It is feasible that a GDN is found to be efficient against the modelled benchmark, but then deviates substantially from the notional cost structure applied by the RPE mechanism, and as a result faces a reduction in its allowed costs that would not occur in the presence of GDN-specific weightings. Similarly, an inefficient GDN could also benefit from the notional cost structure if its GDN-specific cost structure deviates in a different direction.

On the surface, it would also appear to be inconsistent to use company-specific weights for GT and ET, but not for GD.

Ofgem also states that there is a "potential risk of double counting with regional wage adjustments

applied within the totex modelling”.³⁹ It is difficult to see why this would be the case given the regional wage adjustment is reapplied to modelled totex before the RPE mechanism is applied. These are two fundamentally different steps – the labour adjustment within the modelling process is intended to produce comparable totex values to provide a benchmark, whereas the RPE mechanism is intended to allow for cost changes above or below CPIH indexation. If a regional adjustment is applied to labour costs, it is more reason to allow for company-specific cost structures given the same percentage change in labour costs relative to CPIH will lead to a greater total cost change in regions with higher labour costs.

We note that Ofgem has not considered the use of dynamically weighted indices and cost structures. As shown in the Oxera report submitted by the ENA, a failure to allow for this could give rise to ‘composition risk’,⁴⁰ whereby costs structures deviate from the ex-ante position and therefore a network is under- or over-compensated under the existing mechanism. While this is also a concern driven by the notional cost structure applied to GDNs and DNOs, it would still be a problem with a fixed ex-ante company-specific weighting.

Networks may choose to deviate from proposed cost structures for a number of reasons. For example, a cheaper labour-driven alternative to a proposed capital solution could be found to address a particular issue that was not known at the time of the final determination – it would be efficient to substitute towards this cheaper alternative. It may also be the case that over the course of a price control period, new information or supply constraints could cause a delay in some work in favour of more pressing work, thereby changing the cost composition of the network investment in that year, and possibly through the remainder of the price control.

A failure to address this increases the risk that the RPE mechanism leads to inaccurate adjustments to cost allowances, depending on the direction of substitution and the behaviour of the selected indices. In the example above, where a network chooses to increase its labour cost share, it will be over-compensated where the labour indices is falling, and under-compensated where the labour indices are increasing.

Materiality Threshold

For consideration for ED, Ofgem should link all costs to the RPE mechanism if a reasonable index can be found to describe those costs, irrespective of the materiality of the cost category.

For GD, GT and ET, the threshold is set at ‘at least 10% of totex’ or ‘at least 5% of totex... if the expected real price movement in that cost category is expected to impact Totex by at least 0.5%’.⁴¹

For ED, it would be sensible to attach all of Totex to an RPE index irrespective of materiality. In NGED’s ED Framework Consultation response⁴², we set out that Ofgem should remove materiality as an RPE criterion. Price changes can be very volatile in response to macro-economic events, which in turn could lead to the proposed 10% threshold being breached as the price control progresses. Accurately forecasting these volatile changes years in advance is often impossible.

- For GDNs, Plant & Equipment is 9.6% of Totex, so even a small increase in costs relative to CPIH could risk this happening over GD3. Similarly, the forecast could suggest that a less material cost category will impact Totex by less than 0.5%, but the outturn can be very different.
- For DNOs at ED2, Plant and Equipment and Transport were excluded from the RPE mechanism, despite cumulatively having a material exposure to input inflation, which

³⁹ RIIO-3 Draft Determinations Overview Document, para 6.46

⁴⁰ Oxera for the Energy Networks Association (August 2025), *Review of the ED2 RPE mechanism*, p.40

⁴¹ RIIO-3 Draft Determinations Overview Document, para 6.48

⁴² NGED (Jan 2025) NGED ED3 Framework Consultation Response - Annex 1 Q&A, p.43

presents a source of asymmetric risk and in effect a further efficiency challenge to DNOs in ED2.

- There may also be multiple cost categories not covered by RPEs that taken together are material and could substantially deviate from CPIH. Costs not covered by RPEs are as high as 45.4% for NGT.⁴³

RPEs should cover all inputs where there is a clear and stable wedge (positive or negative) from the CPIH. We see no reason why extending the mechanism to cover all input types would create regulatory complexity.

OVQ19. Do you agree with our proposed approach to OE?

We disagree with the proposed approach to the calculation of Ongoing Efficiency. The 1% precedent has been maintained, but an increasing body of evidence does not support this, and it is at odds with the independent reports that Ofgem has commissioned. Between Draft and Final Determinations, Ofgem should reconsider whether the evidence, particularly post-Financial Crisis, from the EU KLEMS dataset truly supports a 1% challenge. Qualitative considerations should best be used to assess where within the plausible range evidenced by EU KLEMS data the challenge should sit, rather than being used as a sole reason to revert to⁴⁴ a 1% challenge. We consider that the 0.7% put forward by NGT in their business plan is a sufficiently stretching challenge for this price control, supported by quantitative evidence and qualitative considerations. Updated available evidence should be considered to set the appropriate OE target for ED3.

Ofgem set the ongoing efficiency challenge at 1%, considering that a range of 0.7% to 1.3% is reasonable. This is based on:

- **0.7%** - the highest OE target set by companies. While we welcome Ofgem considering evidence provided by networks, we question whether it is appropriate to take the highest submission as the lower bound of the plausible range given all values submitted by networks already considered EU KLEMS evidence. Ofgem should take into consideration the evidence provided by companies – if they are already aiming up within the ranges they set, it would be wrong to take this as the lower bound of a plausible efficiency range based on an assertion that companies and their consultants are incentivised to submit a low ongoing efficiency challenge, particularly given Ofgem's own consultant has set a lower bound significantly below 0.7%.
- **1%** - a 'balanced view... grounded in quantitative analysis while giving appropriate weight to qualitative considerations on the potential for disembodied technical change and the use of VA'⁴⁵ and the expectation that companies will see efficiency improvements from planned investments in IT&T, data and digitalisation and innovation. We contest that some of the qualitative considerations are already contained within Grant Thornton's plausible range of values, and that the opportunity for network companies to gain from this investment is already partially captured by the efficiency of other comparators.
- **1.3%** - representing 'an immediate return to the highest levels of productivity growth observed historically'.

The Grant Thornton report sets the plausible range at 0.1% to 1.3%. This is based purely on Gross Output ("GO") TFP estimates, with the bottom of this range based on the average productivity of comparator sectors between 2010 and 2019, and the top of this range based on the average

⁴³ RIIO-3 Draft Determinations Overview Document, table 12.

⁴⁴ Or indeed go beyond, e.g. PR24 DD.

⁴⁵ RIIO-3 Draft Determinations Overview Document, para 8.34.

productivity of comparators between 1997 and 2007.

In setting the 1% challenge, Ofgem states that ‘the potential for disembodied technical change’ is a reason to increase the challenge – this is already accounted for in the EU KLEMS data. It is the embodied change, i.e. the increase in productivity linked to better quality inputs, that the EU KLEMS data does not capture.

We also note that Ofgem are still considering whether to apply OE for Uncertainty Mechanisms in some cases. As a point of principle, ongoing efficiency should not be applied to UMs as, by their nature, these mechanisms provide funding for programmes later in the price control when costs are more certain. The application of an ongoing efficiency target would therefore inappropriately apply additional efficiency challenges to these programmes of work.

Methodological Issues

The Grant Thornton analysis uses standard ‘difference over levels’ percentage changes and makes use of the extended growth accounts tables produced by EU KLEMS. In our view, log difference percentage changes and the basic growth accounts tables should be used in calculating a plausible range of efficiencies.

Across price controls for the water and energy sectors, there have been subtle differences in the methodology employed to calculate growth rates. These subtle differences can introduce significant changes to the calculated growth rates.

The most common difference is in the decision to base the growth rate on log differences or a standard difference over levels approach. A ‘delta log’ approach is preferred in the context of growth accounting because the difference in logs will average to zero in the case where, e.g., an index increases from 100 to 102 then returns to 100 whereas this will not be the case for a standard approach to calculating percentage change. The growth rates in the EU KLEMS dataset are specified in this manner, as were the ongoing efficiency estimates produced by CEPA for ED2⁴⁶ based on our replication of their analyses, while Europe Economics stated that it ‘consider[s] that the correct approach is to use logarithms’⁴⁷ in its critique of Economic Insight’s report for PR24 (although it uses standard percentage changes in its calculations to mirror the Economic Insight approach).

There is another potential issue with the analysis produced by Grant Thornton – the choice to use the extended growth accounts from EU KLEMS, rather than the basic growth accounts, the latter of which are derived from official national accounts. This is at odds with CEPA for ED2⁴⁸ and Europe Economics for PR24⁴⁹ based on our replication of their analyses. The extended dataset includes intangible assets not included in the basic growth accounts, which requires the use of some assumptions. The basic growth accounts are the official statistics from national accounts.

Correcting for both these methodological issues would place Grant Thornton’s plausible range of values between 0.2% and 1.1%. Immediately, this changes the top end of the range set by Ofgem, and the average productivity growth between 1997 and 2019 (excluding 2008 and 2009) falls below the 0.7% put forward by NGET. A value of 0.7% therefore already seems very high for a lower bound productivity growth estimate.

Choice of Comparator Sectors

Manufacturing should be considered for removal as a comparator sector, given the evidence put forward by CEPA in its RIIO-ED2 ongoing efficiency calculation. Information and Communication

⁴⁶ CEPA for Ofgem (June 2022), *RIIO-ED2: Cost Assessment – Frontier Shift methodology paper*.

⁴⁷ [Critique-of-Economic-Insight-reports-on-PR24-frontier-shift-1.pdf](#), p.26, footnote 37.

⁴⁸ CEPA for Ofgem (June 2022), *RIIO-ED2: Cost Assessment – Frontier Shift methodology paper*.

⁴⁹ [Critique-of-Economic-Insight-reports-on-PR24-frontier-shift-1.pdf](#).

could be retained in the calculation of the upper bound of the plausible efficiency range, but it should be considered a proxy for significant embodied technical change, which should not therefore form an additional qualitative consideration.

The choice of comparator sectors considered for RIIO-3 has expanded since Ofgem's most recent previous assessment at ED2 to now include manufacturing. This needs more consideration – there were specific arguments to exclude certain comparators at previous price controls that have not been addressed. In its ED2 assessment, CEPA argued that the factors impacting the slowdown in manufacturing productivity growth post-financial crisis would not be relevant to Electricity Distribution⁵⁰, and it follows that the same would be true for regulated industries in general. Grant Thornton's Ongoing Efficiency paper for RIIO-3 does not give a convincing reason why it should now be included. Hence, we believe it should be removed on the basis of CEPA's arguments for ED2.

Removing manufacturing and following the corrected methodology suggests an efficiency range between 0.2% and 0.9%. In addition, VA TFP growth is no longer consistently higher than GO TFP growth following the removal of manufacturing.

The inclusion of Information and Communication to form a view of both ends of the plausible productivity range is also problematic. This is a very high productivity sector which substantially increases the historical productivity estimates. While there will be increased investment in IT&T over the coming price controls, which could increase the scope for productivity gains, it is clearly not a comparable sector to the broader activities undertaken by regulated energy companies.

Information and Communication was initially included by CEPA in its ED2 calculation as part of an 'expanded set' to assess the impact of potentially 'transformational change' that 'should not be considered as additive to the qualitative considerations'⁵¹. Therefore, while we are comfortable with its potential inclusion in the set of comparator sectors that form the upper bound of the plausible range, we do not agree that it should be included in the lower bound of the plausible range. The inclusion of Information and Communication to form the upper bound should be considered as already accounting for potential future investment in IT&T, data and digitalisation and innovation – this should not be considered for an additional qualitative adjustment, and covers embodied technical change. Moreover, the comparator industries will already be making use of IT equipment, and therefore the potential for networks to make efficiency gains in this space is already captured in part.

Removing Information and Communication alone suggests an efficiency range between -0.3% and 0.4%. Removing both Information and Communication and manufacturing suggests an efficiency range between -0.5% and 0.0%. This shows that Information and Communication alone drives a significant and impactful additional challenge despite not being a directly comparable industry.

In both these cases, VA TFP growth is still not consistently higher than GO TFP growth. Where we remove both Information & Communication and Manufacturing, the VA TFP range falls below the mid-point of the GO TFP range.

Choice of Time Period

As we set out in our Framework Consultation response⁵², one of our key concerns is over-reliance on pre-2008 productivity data despite consistent evidence of lower productivity gains since then. Recent evidence—whether based on EU KLEMS data or forecasts by the BoE/OBR—has consistently shown significantly lower productivity gains than the 1% annual productivity gain that

⁵⁰ CEPA for Ofgem (June 2022), *RIIO-ED2: Cost Assessment – Frontier Shift methodology paper*, p.26

⁵¹ Ibid., p.32.

⁵² NGED (Jan 2025) NGED ED3 Framework Consultation Response - Annex 1 Q&A, q. 44 response.

DNOs were set to deliver at ED2.

More recent data should be considered more heavily in calculating the baseline ongoing efficiency value – Grant Thornton’s range includes the most recent data, but this is not the case for Ofgem’s plausible range.

Regulated sectors are not immune to the productivity slow-down – they purchase intermediate goods from, and outsource a significant proportion of work to, firms in the wider economy.

Historically, the periods before and after the financial crisis have been given at least an equal weighting. This has always been supported by references to the fact that the ‘productivity puzzle’ may end. This has not happened yet, and there is no evidence that the macro-economy will return to pre-financial crisis productivity levels imminently. More generally, the more recent past is a better predictor of the short-term future.

The final plausible efficiency range should make some reference to the most recent data, **yet 0.7%, the lower bound of the range considered by Ofgem, is higher than the post-financial crisis productivity** growth for any comparator sector with the exception of Information and Communication.

There are also two years that are not included in the Grant Thornton analysis, but for which data is available – 1996 and 2020. We are comfortable with the exclusion of 2020 given the COVID pandemic, but are unsure why 1996 was not considered. Adding 1996 into the corrected analysis does not change the plausible range when all comparators are included, however, it may be important to consider where the comparator set changes.

Gross Output (“GO”) Total Factor Productivity (“TFP”) vs Value Added (“VA”) TFP

GO TFP should be used to calculate the plausible efficiency range given it takes intermediate inputs into consideration. VA TFP growth is probably best considered as a qualitative factor, but it is important to note that this doesn’t guarantee an upward adjustment. VA productivity estimates are always higher in magnitude than the corresponding GO estimate, which means that negative GO values will require a downward adjustment when taking VA into account.

Grant Thornton put forward estimates based on GO TFP growth. This is reasonable given VA TFP does not account for the intermediate inputs that networks make use of. Therefore, GO TFP growth should be used in the calculation of the plausible efficiency range.

Ofgem stated that some weight should be given to VA TFP as a qualitative consideration. We accept Ofgem’s view. The CMA stated in response to the PR19 appeals that “it would be inappropriate to fully weight the... value added estimate without some downward adjustment”⁵³ and as such suggests that the Value Added measure should be considered as part of the qualitative assessment rather than directly forming part of the quantitative assessment. Ofgem has adhered to this approach.

Qualitative Considerations

While it is reasonable to consider VA TFP to make a qualitative adjustment to the plausible efficiency range, the potential for embodied technical change should be captured by the inclusion of Information and Communication.

The qualitative considerations used to uplift the efficiency challenge fall into two sub-categories:

⁵³ [Final report](#), p.246.

- The potential for embodied technical change, which is not captured in the EU KLEMS data.
- Value Added TFP growth being higher than Gross Output TFP.

It is reasonable to take both these factors into consideration when setting the ongoing efficiency challenge.

However, we contest that the inclusion of Information and Communication, which is a very high productivity sector and was initially intended to represent the potential for 'transformational change',⁵⁴ is a proxy for embodied technical change in the energy industry.

Meanwhile, when Information and Communication is excluded from the list of comparator sectors, the GO productivity range sits within the VA productivity range. When both manufacturing and Information and Communication are excluded, GO productivity growth is higher than VA productivity growth in the post-financial crisis period and at the same level in the pre-financial crisis period. VA productivity growth is higher in magnitude than GO productivity growth, so where productivity growth is negative, the use of VA would suggest a downward adjustment. We should therefore be cautious when applying this qualitative adjustment.

Conclusion

Given all the evidence we have considered here, we believe that the 0.7% challenge put forward by NGET in their business plan is stretching.

For ED, the evidence will need to be reviewed and considered ahead of ED3 business plan submission and determinations, and so 0.7% will not necessarily be applicable for ED3. All available evidence should be considered to set the appropriate OE target for ED3.

⁵⁴ CEPA for Ofgem (June 2022), *RIIO-ED2: Cost Assessment – Frontier Shift methodology paper*, p.32.