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Date

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Dear Gavin/Jane,

SPEN Response: Frameworks for Future Systems and Network Regulation

We welcome the opportunity to respond to Ofgem's consultation on frameworks for future systems and network regulation (FSNR) and agree with the strategic case for review of the regulatory price control framework. As the decarbonisation of the energy system accelerates, this will have an increasing impact on the demand for our electricity network and the way in which it is used. This means that our network needs investment and upgrading at an unprecedented pace and scale. It is therefore timely that we take stock to identify if the existing regulatory framework risks hindering the progress needed and, where appropriate take action to remedy issues that are identified.

This current FSNR review is published against a backdrop of radical regulatory reform that is already taking place already. This includes but is not limited to; the creation of the Future System Operator through the Energy Bill; Connections Reform; Review of Local Institutions and Regional Governance; Accelerating Strategic Transmission Investment (ASTI); REMA and Central Strategic Network Plan (CSNP). Such change is coming at a time where network shareholders are investing between £100bn and £140bn to meet net zero plans¹. It is essential that Ofgem undertakes an impact assessment to ensure that these initiatives are adequately linked and assessed holistically. We therefore believe any FSNR review must focus on evolution and not revolution, as set out in detail of our response, to ensure that investor confidence is not jeopardised.

Our view is that RIIO needs to remain at the core of the future regulatory framework, with Ofgem's FSNR programme changing the focus of discussions from the application of theoretical archetypes to a more pragmatic focus on 'Quick Wins' and 'Significant Change'.

¹ [Electricity Networks Strategic framework \(2022\)](#)

This would allow progress to be made quickly in certain areas alongside the ability to conduct deeper impact assessments where necessary.

Our key points are summarised below. In Annex 1, we provide our perspective on the overall strategic direction of the FSNR review and highlight some key aspects which we believe need to be considered. We then conclude the annex with responses to the consultation questions.

1. Evolution not Revolution is Required

While we share Ofgem's view that the regulatory regime needs to encourage infrastructure to be built as rapidly and efficiently as possible, we are concerned that Ofgem is at risk of overlooking the strengths of the existing RIIO framework and progress that has been achieved under it. Incentivising output delivery has been successful in driving step change in improvements across key areas that matter to customers including customer service standards and network interruptions. We believe it is vital that momentum in infrastructure delivery is not lost by overhauling a recognised framework that delivers and we encourage Ofgem to consider incremental changes to the framework where there is evidence it is needed.

The RIIO model provides a comprehensive and coherent package that has promoted the delivery of a sustainable energy sector at value for money to current and future consumers. Unbundling or disaggregating the framework risks undermining what it is designed to achieve as a package. The model has been successful in encouraging network companies to do what it was designed for², which was to:

- seek to better understand the new and changing needs of existing and future consumers,
- invest in new capital assets and new operating solutions,
- undertake more innovation, both technological and commercial,
- focus on what is needed for the long term given the time horizons associated with the sustainable energy sector (e.g., the 2050 targets),
- look for ways of delivering economic and efficient network services at long-term value for money,
- consider alternative delivery options given uncertainty about how best to deliver, and
- develop new commercial relationships with users of the network and end consumers, to enable them to meet the challenges together.

These drivers are as relevant going forward as they were at the time of RIIO's introduction. With this in mind, we feel an evolution of the RIIO framework has the potential to meet the challenges of delivering grid capacity at pace without compromising what it is designed to achieve (and what it has in fact achieved to date) as a package.

² [RPI-X@20 decision final \(ofgem.gov.uk\)](#)

2. Investor and Supply Chain Confidence is Vital to the Success of Net Zero

The global market for network assets has evolved rapidly over last 12-24 months, with a significant and growing disjoint between demand and supply caused by macro-economic impacts from the aftermath of Covid and the war in Ukraine. This has resulted in around a 50% shortfall in supply to fulfil the global demand of vital grid assets such as HVDC cable. The supply / demand imbalance is not expected to be resolved in the short to medium term as incremental manufacturing capacity and growth in the highly skilled workforce are relatively intractable structural issues. For example, the current supply capacity for HVDC cables is estimated to be between 6,700km to 7,800km per annum whilst global demand is estimated to be 9,500km in 2025, rising to over 12,000km from 2026 to 2028. This is alarming since there are only three principal converter suppliers globally.

The gap between what is needed and what is available is widening because there are long lead times for transmission and distribution equipment and utilities (globally) are countering the problem by placing orders sooner, looking for new and more secure suppliers, and aggregating buying power. Network development programmes in the UK risk being left behind if potential upheaval to future regulatory arrangements prevents network companies in the UK from taking similar measures or undermines supply chain confidence in committing to UK infrastructure needs. Indeed, the latest results from the Global Infrastructure Investor Association (GIIA) Infrastructure Pulse survey³, which gathers views directly from investors who manage a total of 1 trillion dollars in infrastructure assets around the world, states that *'In the UK in particular, respondents continue to cite an 'unattractive regulatory regime' and 'political instability' as considerably bigger brakes on investment compared to the rest of Europe and Americas.'* We certainly do not want to see this position worsen.

We are currently in an unprecedented environment where SPEN's shareholders are expected to make a 3-to-5-fold run rate increase of annual investment during RII0-3 when compared to current expenditure levels; we have not seen this level of investment since privatisation. It is therefore crucial that the current risk environment is assessed fully when negotiating revised rates of return or risk levels.

The regulatory framework can be adapted to support some of these issues by allowing a significant proportion of ex-ante funding to be granted for our future projects to allow us to progress at pace and without undue risk. However, we believe that any potential expansion of the use of ex post / cost-plus regime should not be ruled out but requires further assessment and detail from Ofgem. Whilst we can see that theoretically this approach could allow investment delivery at pace where there is a clear needs case but a significant level of uncertainty in forecast costs e.g. due to an imbalance in power between network operators and the supply chain, we have concerns with the risk of being faced with 'hindsight regulation' and a level of ex-post clawback that is unanticipated. The cost assessment approach that evolves for the current ASTI projects e.g., SPEN's current Eastern HVDC link, should be

³ [Pulse Survey Q2 2023: The Americas | GIIA](#)

carefully assessed and developed; if successful, this approach could be used a model for future large-scale projects facing significant cost uncertainty. We are shortly due to submit our Project Assessment submission to Ofgem for this project and look forward to working closely with the Ofgem team to assist in the development of an appropriate methodology for assessing these costs.

3. Future System Operator (FSO)

We have some specific concerns over the proposals surrounding expansion of the FSO's role, from both a Transmission and a Distribution perspective.

At a Transmission level, we support a strategic coordination role for the FSO on Strategic Investment projects, coordinating proposals and input from a variety of stakeholders and sectors, alongside their own analysis. For all other transmission works and connections, we cannot identify (and Ofgem has not provided evidence of) the consumer value in transferring network planning roles to the FSO. An expanded FSO role would result in significant risks to both timely delivery of infrastructure and the quality of transmission solutions proposed. This stems from:

- the FSO lacking detailed system knowledge and project engineering / delivery expertise,
- decreased coordination with wider transmission works,
- undeliverable reinforcements where system access cannot be optimised,
- unclear accountability for the system weakening ownership of risks,
- poor coordination in consenting processes,
- scarcity in power system specialists placing limitations on the FSO, and
- questions over whether the FSO is able to match the granularity of forecasting and engineering analysis and community relationships achieved by network companies.

Scottish TOs have previously held System Operating roles pre-Privatisation, therefore, we already work very closely with the ESO to develop their network options and significantly feed into this process due to the deep local knowledge of our network and stakeholders that we have.

In Distribution, whilst we support the introduction of a Regional System Planner (RSP) role in principle, we do not agree with Ofgem's designation of the FSO as its lead option to take on this role. Many of the risks highlighted above equally apply to Distribution, but fundamentally, the FSO does not have the necessary expertise in maintaining, designing and constructing electricity distribution networks to get involved in these areas directly or indirectly through competition. Extending its remit to take on an RSP role would, duplicate planning entities and add layers of uncertainty. This proposed expansion in the role of the FSO also assumes they would be able to recruit and build a new team of distribution experts. This comes at a time of existing resource constraints when network operators need to be focused on delivery.

The depth of evidence we submitted to justify our RIIO-ED2 plans demonstrates the scale and complexity of the work required to plan and operate distribution networks. This requires highly sophisticated modelling and control, which is only made possible with deep local knowledge and an ever-increasing interaction and interdependency between forecasting, network planning and real-time operations. Our plan and activities reflect the fact that we take listening to the needs of our local stakeholders and customers seriously. Examples of the scale of challenge the FSO would face in replicating our approach include: the FSO would need to engage with c.135k customers and stakeholders to replicate our RIIO-ED2 engagement model across GB; and if it wanted to replicate our ED2 strategic optimiser engagement with Local Authorities, it would need to commit to working directly with the 350+ Local Authorities across GB on the design and development of their decarbonisation of heat plans at a local level.

Our detailed response in the Annex, and our recent response to Ofgem's consultation on the future of local energy institutions and governance expands on these concerns. We believe that changes should only be made where there is clear evidence of benefits and without exacerbating existing issues around the supply chain and delivery timelines.

4. Whole System Planning

We welcome the focus on whole system planning within the FSNR. Our experience is that it is an area in which Ofgem, and Government must provide Network Operators with greater clarity. For example, there could be a case for large scale industrial clusters to be converted to H₂ Facilities. However, on the other hand other industrial commentators suggest conversion of the gas network to H₂ for industrial scale domestic heating. In the timescales required by Government to meet Net Zero targets, both scenarios are unrealistic.

5. Process - Business Plan Timelines Required Urgently

To date, we have attended all of the 7 working group meeting across the 5 FSNR working groups and 2 bilateral meetings. This engagement is welcomed; however, we note that the Ofgem working groups continue beyond the due date of this consultation. As a result, we may require to follow up further should any new policies emerge that we wish to comment on.

At this stage of the process, the timelines for any Business Plan process have not yet been established. Companies require at least 2 years to prepare their Business Plans whilst carrying out thorough stakeholder engagement processes. This is further complicated by the fact that ESO is due to publish its Central Strategic Network Plan (CSNP) at the end of 2023. This plan will set out the required holistic transmission network plan beyond the next price control period and will therefore be fundamental to any business planning processes across all TOs. We therefore need confirmation of the expected FSNR Business Plan timelines as soon as possible, including how other wider policies such as the CSNP will factor into this process.

The development of the RIIO-T2 and RIIO-ED2 Business Plans was challenging due to condensed timelines and delayed publication of key elements of guidance for network

owners. As part of RII0-3 development, it is important that TOs are given sufficient time to engage with their stakeholders and develop robust and detailed plans for the price control period. This will require timely decisions following the FSNR consultation and strong communication between both Ofgem and the TOs. We are fully committed to engaging collaboratively with Ofgem through this process.

6. Consumer Voice must be heard

We believe it is critical to ensure the voice of consumers and stakeholders are heard through the price control process. However, we do not believe that Ofgem needs to prescribe the form of engagement or the stakeholders who need to be involved. Prescription around how this is undertaken disproportionately increases regulatory burden. If we go to significant lengths to engage a broad range of key stakeholders in discussions about our investment programme and take their feedback on board to shape this, it is important to ensure this engagement is useful and valuable to the regulator when assessing the consumer value. To ensure wasted engagement is avoided, clear parameters should be set from the outset of any price controls, confirming which elements of the price controls Ofgem would find it useful to receive further stakeholder feedback.

As previously mentioned, during RII0-ED2 we engaged with over 19,000 customers and stakeholders during the development of our plan. It is critical that their voices continue to be heard. We therefore welcome a commitment from Ofgem that it will ensure end consumers' voices are truly listened to.

7. Resilience

Willingness to Pay studies in RII0-2 have highlighted that resilience almost always comes out on top in terms of customer priorities; it is therefore imperative that resilience has a clear focus within the up-and-coming price controls.

We believe that electricity system resilience, network operational resilience and community resilience should be considered holistically. For example, Rural communities are often home to more vulnerable customers – who are increasingly reliant on electricity. Losing power in a 'Net Zero world; means no heating, no transport, and no communication. Communities can become isolated if communication masts lose power. This can also delay power restoration; therefore, phone masts require uninterruptable power supplies. This is simply one example; however, it highlights the increasing importance of taking a whole systems approach to resilience.

8. Digitalisation fundamentals

We are investing heavily in our digitalisation tools, examples of which include building our distribution network digital twin or our 3D tools for monitoring the network. We agree that the FSNR work should recognise the importance of digitalisation and the importance of stimulating the associated new digital skillsets within the industry. However, given the inherent incentive for us to enhance and improve these capabilities, it is important that

Ofgem avoids the temptation to prescribe how we should be developing these further. Such prescription would only delay progress and increase costs to consumers.

In addition, whilst we support the principle of reducing resource burden and streamlining regulatory processes, we believe that Ofgem's proposal to consider how it can utilise the potential of "an almost real-time monitoring in network regulation" needs much further thought to fully assess the suitability of such an approach and risks of data misinterpretation.

We look forward to continuing to actively engage in the development of this work via the industry working groups and will continue to assess the impacts of any potential changes.

9. Sectoral Differentiation is Required

The review process itself needs to remain focussed on the desired outcome of enabling investment at scale and pace across the different sectors and should not get lost in theoretical debate over use of regulatory archetypes. It is important that differences between sectors are recognised from the outset and that the benefits assessments are done at a sector level; there should be no one size fits all approach. Change should only be made where there is clear evidence of benefits and full impact assessment by Ofgem of the potential unintended consequences. Our detailed response proposes a benefits framework for Ofgem's consideration.

10. Competition should only be implemented where long term Consumer Value is proven

Lessons must be learnt from the past. Competition should not be an aim in and of itself. In considering any expansion on the role of competition, Ofgem should focus on assessing whether such competition is likely to develop in a way that benefits customers instead of placing too much weight on 'whether' a market is contestable; just because competition 'could' be introduced does not mean it 'should'. As previously mentioned, the supply chain environment we face is unprecedented, therefore, we should be looking to consolidate contracts as far as possible so that these are palatable to the global supply chain. The introduction of new third parties will result in a further disaggregation of costs which is counter to what is required.

We already support a significant amount of competition on our network, with c.96% of our regulated transmission activities being delivered by the market. In addition, our industry is currently facing significant supply chain challenges which results in multiple players vying for the exact same supply chain assets. Any competitively appointed party would need to buy components in the same market, where negotiating power is increasingly in the hands of the supply chain. Similarly, it is likely that any third party would need to use one of a limited set of contractors with the required expertise and experience to deliver infrastructure projects.

Any assessment of costs and benefits from competition must recognise the potential negative impact of third-party delivery by introducing additional complexity to security of supply, cyber security, safety, outages, and the continued provision of an efficient, co-

ordinated and economical electricity network. For example, in distribution, competition has been introduced in connections resulting in the creation of Independent Distribution Network Operators (IDNOs). To date, we have found that some IDNOs are not able to offer customers the full services they require as these are not commercially viable, and ultimately, they default back to the DNOs for services such as fault response services. As a result, this creates new consumer costs that have not been considered. We have observed competition in the energy retail sector result in mass failures of market entrants lacking the appropriate governance, financial backing or sustainable business practices. There is a very real risk that market entrants new to network ownership may fail or deliver substandard or late assets, resulting in additional costs to consumers.

We support competition where its value for consumers can be clearly demonstrated. However, in the current electricity system, with high constraint costs, a constrained supply chain and fast-approaching Net Zero targets, it is difficult to see any benefit to introducing the additional uncertainty associated with third-party delivery of major network assets.

We look forward to continuing to actively engage in the development of the FSNR work via the industry working groups and will continue to assess the impacts of any potential changes

If you have any questions on our response, then please feel free to get in touch with either myself or Caroline Ainslie.

Yours Sincerely,



Stephanie Anderson
Head of Regulation & Policy
SP Energy Networks

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Context

We agree with the strategic case for review of the regulatory price control framework. As the decarbonisation of our energy system accelerates, this will have an increasing impact on the demand for our electricity network and the way in which it is used. This means that our network needs investment and upgrading at an unprecedented pace and scale. It is right and proper that we take stock to identify if any elements of the existing regulatory framework risk hindering the progress needed and, where possible, take appropriate action to remedy issues that are identified.

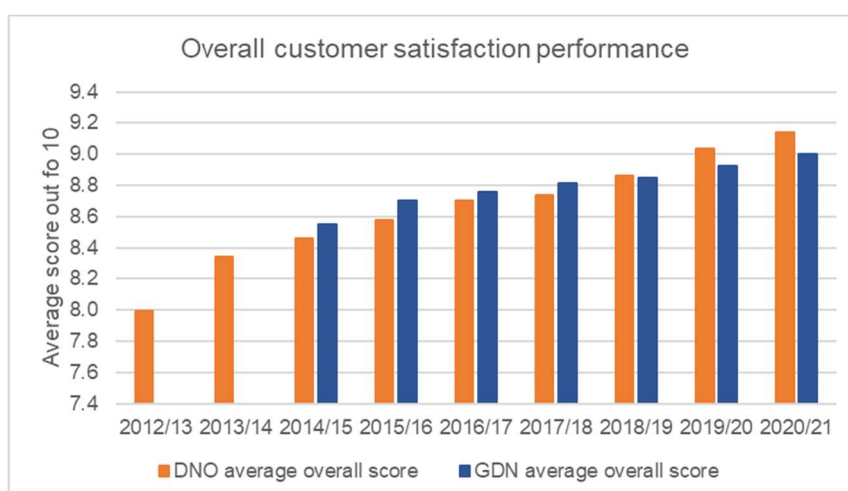
Before we answer the specific consultation questions, we would like to give a view on the overall strategic direction of the FSNR review and highlight some key aspects which we believe need to be considered.

Strategic direction of this work

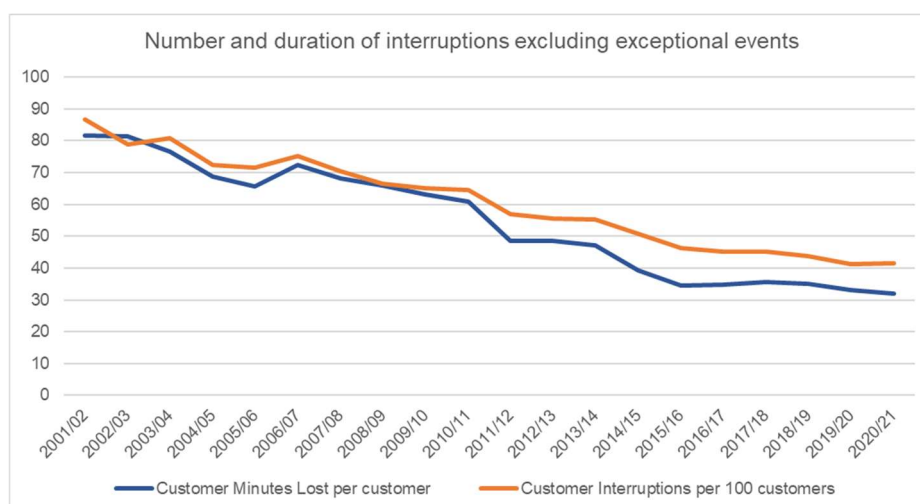
A solid RIIO foundation

Whilst we accept that change may be appropriate in some areas, we firmly believe that the RIIO model needs to form the bedrock of Ofgem's future regulatory framework for networks. It is a tried and tested approach which has delivered and continues to deliver considerable benefits to consumers and has been replicated by other regulators across the world. If there is significant overhaul to the regulatory approach, and a model emerges that is not underpinned by the RIIO principles, then investor confidence could be negatively impacted at a time when we need unprecedented levels of investment. In addition, on a pragmatic level, we do not believe that there is enough time to conduct the thorough impact assessment and implementation programme that would be required to successfully shift to a radically different regulatory framework when RIIO-2 ends.

It is important that the successes of RIIO are recognised and not taken for granted. Incentivising output delivery has been successful in driving a step change in improvements across key areas that matter to network company customers. For example, from the graphs below it is clear that customer service standards have increased whilst the number and duration of interruptions has fallen.



Source: Networks' reported performance data, as collated by Ofgem⁴



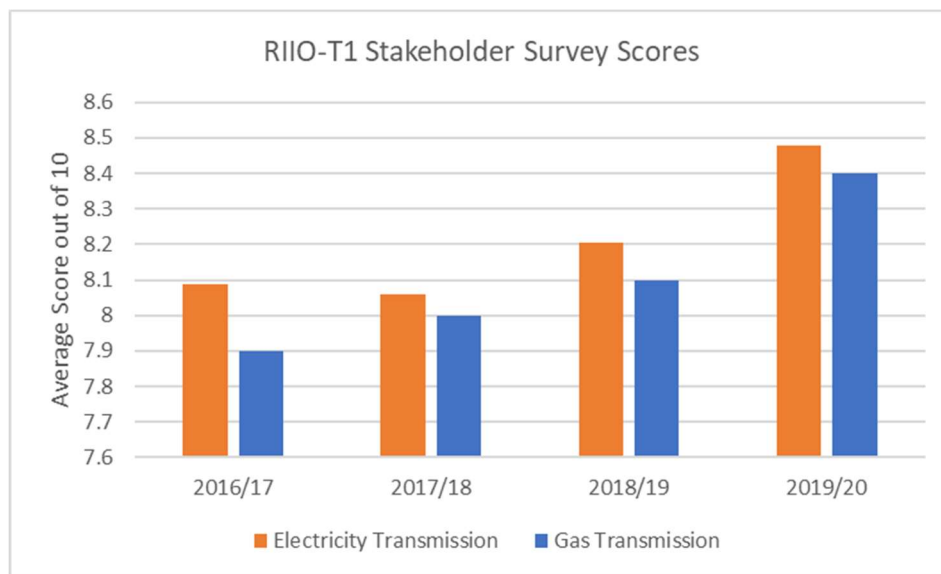
Source: Networks' reported performance data, as collated by Ofgem⁵

⁴ DNO data DPCR5: *Distribution Price Control Review (DPCR) 5* | Ofgem

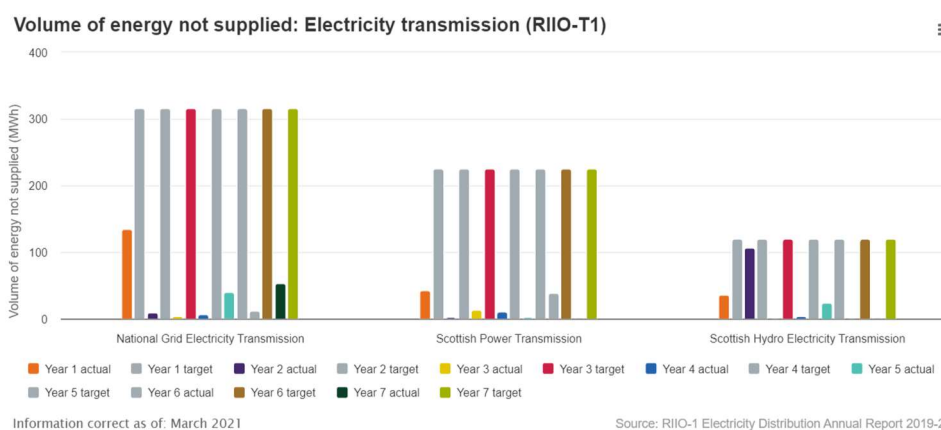
DNO data RIIO-ED1: *RIIO-1 Electricity Distribution Annual Report 2020-21* | Ofgem

GDN data: *RIIO-GD1 Annual Report 2020-21* | Ofgem

⁵ DNO data: *Distribution Price Control Review (DPCR) 5* | Ofgem, *RIIO-1 Electricity Distribution Annual Report 2020-21* | Ofgem



Source: Networks' reported performance data, as collated by Ofgem⁶



Source: Networks' reported performance data, as collated by Ofgem⁷

An alternative to Archetypes

We appreciate that Ofgem has tried to make the complex, and often nebulous concept of network regulation more tangible by introducing the concept of three distinct Regulatory Archetypes within the FSNR consultation. Our observation from participation at Working Groups and other discussions with industry stakeholders is that although the Archetypes have been useful to understand key components of the regulatory framework, continuing to reference these in discussions can often cause confusion. This is perhaps to be expected, as we are currently operating within a RIIO framework (Archetype 2), but in Transmission (as an example) there are also some similarities to Archetype 1 with HND, and Archetype 3 with areas of cost pass through.

⁶

TO Data: RIIO Electricity Transmission Annual Report 2019-20 | Ofgem

⁷ TO Data: RIIO Electricity Transmission Annual Report 2019-20 | Ofgem

It is important that this work remains focussed on the primary aim of enabling network investment at considerable pace and scale to accelerate the Net Zero transition. With this in mind, alongside our view that RIIO should remain at the core of the future regulatory framework, our suggestion is that the FSNR work moves on from the Archetype terminology to a more practical and tangible approach which considers change from two perspectives in parallel. Our specific suggestion is that Ofgem's FSNR programme structures discussions and future work around the categories of 'Quick Wins' and 'Significant Change'.

Implementation of Quick Wins

As with any programme of work, it is sensible to look at the lessons learned from RIIO-1 delivery and RIIO-2 planning to improve those aspects that have not worked as well as they could have. We would support a comprehensive lessons-learned exercise amongst all industry parties to identify potential improvements to processes and approaches that were used within the business planning process as well as those that form part of the framework within the price control period.

Our initial thoughts, ready to be tested, discussed, and expanded upon include:

- Both Ofgem and network operators should identify areas where processes could be simplified either because the regulatory effort and resource burden is disproportionate to benefits, or simply because there is a more efficient way of doing things. Our response to Question 4, provides further details on specific areas where Quick Wins could be identified.
- There are core stages of plan development that every network operator needs to go through in order to produce a high-quality business plan that shareholders agree to invest in. Examples of these include stakeholder engagement or optioneering and engineering solution justification. Ofgem should not need to prescribe any detail within these stages as this can often be misaligned with company processes and practices and create an unnecessary additional resource burden for no additional value. We provide more details on the stakeholder engagement example within our response to Question 1.

Robust assessment of any significant changes

We do not discount the idea that there may be areas where more significant change within the framework could be beneficial. Any such change should only be made where the needs case has been clearly assessed against a relevant and robust benefits framework. Evidence based decision making is essential to ensure that any changes being made to the framework do not in fact exacerbate existing issues or have unintended consequence. With the primary driver being to enable investment at scale and pace, then, our initial suggestions (subject to debate and refinement with industry parties) are that the changes should be assessed against the impact on the areas outlined below. As outlined in our response to Q11, assessment

against these areas could be done alongside the assessment against Ofgem's consumer interest framework:

- Regulatory resource burden;
- speed of decision making;
- speed of investment;
- supply chain challenges;
- planning & consenting delays; and,
- sector attractiveness to investors.

We recognise that some of these challenges such as supply chain and planning cannot be removed as a result of Ofgem changes, as there are external drivers at play. However, some changes could make these aspects worse. For example, replacing the TO as the party responsible for competitively procuring key Transmission assets, or even signalling such a potential change, could create confusion amongst the supply chain and also negatively impact investor confidence.

Q1. What should the role of the 'consumer voice' be and through what institutions and processes should it be channelled?

We believe it is critical to ensure the voice of consumers and stakeholders are heard through the price control process. However, we do not believe that Ofgem needs to prescribe the form of engagement or the stakeholders who need to be involved. Prescription around how this is undertaken effectively disregards the processes and established ways of working that the network companies have with their customers and stakeholders, and disproportionately increases the regulatory burden. Notwithstanding the above view, if Ofgem was to continue to mandate certain stakeholder engagement activities, then in our experience, the following should be considered:

- **Expert, independent groups have an important role to play.** From our position as both a distribution and transmission licence holder, we found the 'User Group' model used in Transmission to have delivered the most value. That group helped to co-create the business plan and were able to represent the views of users in real life discussions – helping to shape aspects of the plan as it was being developed. This was significantly more impactful at embedding stakeholder and consumer voice into the process rather than a challenge-based process. Groups working alongside the relevant network company are more effective as they can get closer to the individual proposals, how they relate to each other and how those proposals will impact local and regional issues. "Co-creation" is significantly more constructive than a "challenge" based process.
- **Network companies need early clarity** on what engagement Ofgem expects to be evidenced. We do not believe that engagement format should be prescribed, but if Ofgem does want to mandate anything then network operators need early sight of this so that this can be incorporated within the engagement programme. An

engagement programme to support a price control would generally run for at least 2 years prior to final submission, so guidance on the engagement approach at least 2 years ahead of this is important.

- **Stakeholder knowledge and understanding:** With the very best will, language and intention it is still very challenging for end domestic customers to have the requisite level of knowledge to be able to make informed decisions about networks investment. Therefore, we believe customer engagement should be focused on areas in which customers are most directly impacted and can express a view, and input on wider areas should be sought from expert groups able to represent the interests of groups of consumers.
- **It is also important to avoid 'wasted engagement'.** Given the scale and size of the price control package, it is difficult for network companies to engage meaningfully on every part of our investment programme. Ofgem also already consults widely on the main building blocks of the framework, for example through the Sector Specific Methodology Consultations in RIIO-2. Notwithstanding our view that the form of engagement should not be prescribed, clear parameters should be set by Ofgem from the outset of any price controls which outline any specific areas where Ofgem would like to see stakeholder feedback. This will help to avoid wasted or rushed engagement if such requirements were to be issued late in the process.

Q2. How detailed could an independent, cross vector view become to determine future plans for periods beyond RIIO-2 and support effective use of the 'Plan and Deliver' model?

Transmission Planning – Enabling Net Zero:

For transmission networks to enable Net Zero and 2030 and 2035 energy targets, the roles and responsibilities relating to network planning must be aligned with the timely delivery of network infrastructure. A collaborative, whole system approach to network planning will be critical, taking advantage of both the FSO's strategic analysis, and the significant experience, skills, local network knowledge and stakeholder relationships that the TOs have developed under the RIIO and preceding regulatory frameworks in the interest of consumers. It is not efficient for one party to have sole responsibility for strategic network planning, given the breadth of skills and combination of local and national level knowledge and experience that must feed into the identification and delivery of optimal network planning outcomes.

We therefore support a co-ordinating role for the FSO, collaborating with the TOs and third parties to identify and recommend optimal solutions. We see the Centralised Strategic Network Plan (CSNP) delivering maximum value where the FSO collaborates effectively and meaningfully with other key industry parties, taking advantage of the skills and expertise held by the TOs, rather than simply consulting them or engaging them once solutions are identified. We believe that this coordinating role for the FSO on Strategic Investment (SI)

projects would support the development of whole system solutions, particularly for large, cross-boundary projects or cross-sectoral projects.

We believe that an appropriate whole system scope for SI would be new, high-value, network infrastructure projects that facilitate cross-boundary capacity upgrades, or interact with other sectors e.g., hydrogen. These are the projects which would see the greatest benefit from the FSO's strategic coordination as the FSO could coordinate proposals and input from a variety of stakeholders and sectors, alongside their own analysis. For all other transmission works and connections, we cannot identify (and Ofgem has not provided evidence of) the consumer value in transferring network planning roles to the FSO. The scope of these works can change frequently, and a 2-3 yearly refresh of the CSNP would not likely be agile enough to progress some of these projects at pace.

Ofgem note the 'Plan and Deliver' model (Archetype 1) relies on the reduction of information asymmetries via new strategic planning processes. If the FSO were to plan the strategic network and deliver the CSNP without leveraging the full expertise of the TOs, and other key stakeholders, we foresee significant risks, both to the transmission system and to the value that consumers receive. These risks include reduced efficiency and co-ordination in network planning, risks to deliverability, and exacerbation of industry-wide resourcing issues. We consider there to be significant risk that Ofgem's 'Plan and Deliver' model (Archetype 1), at best, may simply modify the parties involved in any information asymmetry, and at worst, may lead to the loss of significant expertise which currently exists within network operators.

The TOs' significant experience, local knowledge and stakeholder relationships make them ideally placed to continue to identify solutions on their networks that would then feed into the FSO's detailed economic and system analysis, identifying the optimal set of options for flexibility, reinforcement, and other solutions to network constraints.

Were the FSO to be solely responsible for network planning, without a collaborative approach, we believe this would result in significant risks to both timely delivery of infrastructure and the quality of solutions proposed. Key risks include:

- **Lack of detailed system knowledge and project engineering / delivery expertise:** We note that Ofgem indicate that for the 'Plan and Deliver' model (Archetype 1) to work in practice, the FSO would need to be demonstrably capable of producing coherent whole system cost optimised plans. Ofgem also note that once a sufficiently detailed specification of needs and plans has been agreed, this model proposes that cost control be achieved by ensuring good procurement practices are in place. TOs draw on significant knowledge and experience from outside the system planning function to enable optimum solutions to be produced, developed and delivered over time. These areas include operations, engineering design, standards, consenting and project delivery. For example, detailed knowledge of flood prevention requirements, noise mitigation, land availability information, stakeholder concerns and priorities and detailed knowledge (and, importantly, history) of existing infrastructure and property are essential components in establishing even the very highest-level plans.

The CSNP body in silo will either not have this experience to draw on or it will duplicate this work, both of which would increase costs to consumers.

- **Decreased coordination with wider transmission works:** There are numerous occasions where we, using our network planning roles, optimise our time working within a particular area. For example, if we plan to build a new asset in an area that also requires asset replacement, we will carry out this work at the same time to limit the subsequent impact on the local community and optimise / minimise system access requirements (equipment outages). This is evident in SPT's Kincardine North project, where multiple network needs – including system boundary reinforcement, substation and overhead line condition remediation and flood mitigation – as well as wider community economic activities, are being co-ordinated in a single solution that also enables future reinforcements while minimising new infrastructure. This efficiency risks being lost if another party, unfamiliar with the local assets, stakeholder interests and community priorities were to carry out the network planning role alone.
- **Deliverability:** We own and manage a transmission system that is relatively tight geographically, and system access can be challenging to secure. A CSNP that makes recommendations without collaboration with the TO risks recommending an undeliverable set of reinforcements, if system access cannot be optimised. With the scale of major transmission projects and customer connections required to be delivered by 2030 and beyond, system access will only become more challenging, and effective whole system collaboration will be required to manage it.
- **Accountability for the system:** Currently, the TOs have extensive obligations regarding the management of their networks. These include legal obligations under the Electricity Act 1989, licence obligations, and compliance with industry standards and codes including the Security and Quality of Supply Standards (SQSS) and the System Operator Transmission Owner Code (STC). A diminished role for the TOs may result in reduced transparency, lack of accountability, and unfair allocation of risk if network planning failures occur and require a reconsideration of core competency and compliance roles for all industry parties.
- **Consenting projects:** The TOs' network planning role interacts significantly with its role in consenting projects, setting out the strategic needs case, and providing evidence in the context of planning or consenting hearings or inquiries. It is unclear on how the FSO will interact with the consenting process, and this must be clarified by Ofgem through the FSNR process. If this area is not properly considered then there is a risk of confusion and poor coordination between network planning teams, consenting teams, and local stakeholder engagement risks which would cause significant delay to critical infrastructure projects.

- **Industry-wide resource issues:** Currently, as an industry, we are facing recruitment challenges for skilled network planning staff, given increasing global competition for in-demand skills in our sector, which will become even more intense as investment to achieve Net Zero continues to increase. The impact of the proposals on skills and recruitment must be recognised and properly assessed by Ofgem, as inefficient use of an already small pool of highly skilled resource could increase costs to consumers, as well as create risks to timely delivery. Industry upheaval and uncertainty in future career progression for network planning engineers may result in the transfer of critical skills away from transmission network planning to other engineering areas, at a time when they are most needed. The signal that is sent to employees in the industry regarding the future of network planning must be carefully considered, as skills losses stemming from regulatory signals and career uncertainty will not be easily reversed. The development of the CSNP must not assume that highly skilled staff will automatically move to the ESO/FSO. Skilled transmission planning engineers have alternative options to undertake similar network planning responsibilities, including opportunities with generators, DNOs, other third parties or retraining.

Distribution Planning Complexity:

As outlined in our response to Ofgem's recent consultation on the future of local energy institutions and governance, we agree that local and national arrangements for network planning should work together to optimise the system as a whole. At a regional level, there is a need for a cross-vector co-ordination role to assess and co-ordinate how demand for energy is likely to develop at a regional level. Therefore, in principle we are supportive of a Regional System Planner (RSP) role with clear roles and responsibilities – provided that these do not duplicate the existing network operator role.

However, SPEN do not agree with Ofgem's designation of the Future System Operator (FSO) as its lead option to take on the proposed RSP and market facilitation roles.

The ESO (FSO) does not have the necessary expertise in maintaining, designing and constructing electricity distribution networks to get involved in these areas directly or indirectly through competition. Extending its remit to take on a Regional System Planner role would, in effect, duplicate planning entities and add layers of uncertainty, without even factoring in the challenges the FSO would face with recruiting a new team of distribution experts in a scarce resource pool. This comes at a time of resource constraints and when network operators need to be focused on delivery.

The depth of evidence we submitted to justify our RIIO-ED2 plans demonstrates the scale and complexity of the work required to plan and operate distribution networks. This requires highly sophisticated modelling and control, which is only made possible with deep local knowledge and an ever-increasing interaction and interdependency between forecasting, network planning and real-time operations. For example:

- **Granular Forecasting:** Our DFES comprises network wide granular forecasts out to 2050 for all LCT technologies. These are underpinned by stakeholder feedback, including devolved governments, to ensure our plans are regionally reflective and facilitate the different legislated Net Zero targets, interim carbon targets, energy strategies etc. These factors are important because the large increases in demand and generation require networks to be operated much more dynamically and closer to their technical limits. To adequately assess the impacts of the changing needs of our customers, these forecasts needed to be very granular (down to an individual street level). We needed to consider LCT uptakes at each of our 3.5 million domestic properties for all scenarios out to 2050 to enable us to manage the uncertainty.
- **Sophisticated and granular engineering analysis:** Our Engineering Net Zero model includes all of our assets from the individual services that go into each of our customers' homes, all the way up through the voltage levels to the interface with the transmission system. The model runs analysis for every asset out through the next 30 years across the full range of scenarios and across hundreds of thousands of network assets. The model calculates the location, time and magnitude of forecast overloads which then feeds into a linear optimiser to establish the most efficient and economical combination, sequence and timing of network and non-network solutions. For example, on the non-network side, this process provides all the information required for us to tender for flexibility to manage constraints, and we now have over 1,400 contracts in place.
- **Development and dynamic operation:** We are continuing to evolve our granular modelling approach into a platform that can be used in conjunction with our network monitoring and our Constraint Managed Zones. This will deliver real time automated control of the network, enabling demand to be managed based on system capacity availability.
- **Community relationships:** Close community relationships and in-depth network knowledge are critically important to our ability to safely operate the network. As an example, by the end of RIIO-ED2, the widescale rollout of 14,000 LV substation monitors will give us vastly improved visibility of the flows on our LV networks, and by the end of RIIO-ED2 as a DSO we will be issuing thousands of instructions each day to control demand at an individual street and property level making local community knowledge and relationships vital. Our RIIO-ED2 plans recognise the strategic role DNOs must perform to support cross-vector optimised planning. We are setting up a team of 'Strategic Optimisers' who will use their extensive network knowledge to support Local Authorities achieve a coordinated approach to the decarbonisation of transport and heat at a local level. For example, from coordinating with transport planning to supporting EV charge point optioneering, and also providing advice/input to help Local Authorities develop coordinated plans for decarbonising heat in their Local Heat and Energy Efficiency Strategies (LHEES) in Scotland and Local Area Energy Plans (LAEPs) elsewhere.

Q3. Under what circumstances would competition, or other procurement models such as open book contracting, have benefits over ex ante incentives as a cost control mechanism

Section 9 of the Electricity Act 1989 and the terms of SPEN's transmission and distribution licence obligations require us to develop and maintain an efficient, coordinated and economical, onshore electricity system. We also already support a significant amount of competition on our network, with c.96% of our regulated transmission activities being delivered by the market.

We therefore believe that introducing additional parties into the front end of this process is unlikely to produce material benefits. Our reasons for this are set out below:

- **Supply chain challenges:** As discussed with Ofgem throughout the development of the ASTI framework, the supply chain for critical network components is experiencing unprecedented demand that cannot currently be fully met globally. As a result, costs for network infrastructure are increasing, and the importance of large bulk contracts to derive savings and ensure timely deliverability is greater than ever. Any competitively appointed party would need to buy components in the same market, where negotiating power is increasingly in the hands of the supply chain. Similarly, it is likely that any third party would need to use one of a limited set of contractors with the required expertise and experience to deliver infrastructure projects. It is difficult, therefore, to identify where costs will be saved by competition. In its draft CBA Methodology document⁸, the ESO assumes a 10% capex cost saving could be delivered by competition but provide severely limited evidence for this claim, and the validity of this figure is now even more questionable given current market conditions. It is vital that any potential cost savings associated with competition are robustly evidenced, given the substantial risks that third-party delivery could bring.
- **Complexity:** Competition in network infrastructure introduces additional complexity into the way the main transmission system will be developed, operated and maintained, which is of particular concern given current energy security issues, as identified in the UK Government's British Energy Security Strategy.⁹ Currently, the TOs' track record of delivery demonstrates over 99.9999% reliability on GB transmission networks, with each TO consistently outperforming its Energy Not Supplied targets throughout RIIOT-T1.¹⁰ Any assessment of costs and benefits from competition must recognise the potential negative impact of third-party delivery by introducing additional complexity to security of supply, safety, outages, and the

⁸ <https://www.nationalgrideso.com/document/272126/download>

⁹ <https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy>

¹⁰ <https://www.ofgem.gov.uk/energy-data-and-research/data-portal/energy-network-indicators>

continued provision of an efficient, co-ordinated and economical electricity network. For example, in distribution, competition has been introduced in connections resulting in the creation of Independent Distribution Network Operators (IDNOs). To date, we have found that some IDNOs are not able to offer customers the full services they require as these are not commercially viable, and ultimately, they default back to the DNOs for services such as fault response services. As a result, this creates new consumer costs that have not been considered.

- **Security Risk:** System security remains to be a key priority for our industry. Opening the network to more parties has the potential to introduce further risks from both a system security and cyber security perspective. We believe significant checks are required to be in place to ensure that any entrants are proper actors with a credible history of building, operating and maintaining network assets.
- **Timing:** As the ESO notes in its Early Competition Plan¹¹, the introduction of Early Competition processes carries potentially significant knock-on delays that could impact the development timelines for infrastructure projects. Competition can therefore risk the timely delivery of critical projects required to facilitate customer connections and achieve Net Zero. The subsequent impact on constraint costs and carbon emissions from delays to renewable connections must therefore be considered, recognising the impact of delays caused by the tendering process (which we estimate to be c.2.5 years).
- **Delivery:** There are also considerable risks associated with competition from a delivery perspective. We have observed competition in the energy retail sector result in mass failures of market entrants lacking the appropriate governance, financial backing or sustainable business practices. There have also been issues in offshore transmission, and in April 2023 Ofgem published documents acknowledging that one particular OFTO licensee's 'financial position remains very weak' and that the licensee had given notice to the Authority that it had 'incurred an increase in costs and/or expenses that it considers is an IAE (income adjusting event) on the grounds of uninsurability'.¹² There is a very real risk that market entrants new to network ownership may fail or deliver substandard or late assets, resulting in additional costs to consumers. However, the consequences of network failures could be significantly more impactful than any supplier failures due to the impacts this could have on the grid's operation and ultimately security of supply.
- **Roles and responsibilities:** We do not believe that sufficient consideration has been given to the extent of current network owner responsibilities and how this will apply to third parties. The party tasked with delivering network projects would need to be

¹¹ <https://www.nationalgrideso.com/document/191251/download>

¹² *Publication of notice of an Income Adjusting Event from Gwynt y Môr OFTO Limited | Ofgem*

subject to obligations which are substantially the same as those to which licensed network owners are already subject (including compliance with industry codes like the System Operator – Transmission Owner Code and System Security and Quality of Supply Standard, and restrictions on revenues to ensure consumers are protected). There has not been sufficient discussion around this point. There has also not been any consideration to how this would impact on the network owner's existing responsibilities. For example, TOs will remain subject to the statutory duty to maintain an efficient, coordinated and economical, onshore electricity system but their ability to maintain this system could be impacted by a new entrant's failure to maintain their own system.

- **Distribution considerations:** We have also worked with the ESO to review the potential application of the Early Competition Model at a distribution level, following a request from Ofgem to investigate this. Notwithstanding the issues with competition noted above, there are significant differences in the scale, scope and nature of projects at distribution and transmission level that mean that the Early Competition Model would not be appropriate to apply to distribution projects in its current form. Distribution projects are typically of lower value, further limiting the benefit from running an extensive tender process. They are also typically delivered on shorter timescales, meaning that the significant delay created by the Early Competition Model would have an even greater impact on project timelines. Upgrading the distribution network at pace is critical to ensuring households can decarbonise and maintaining the safe operation of the network. The Early Competition Model is not consistent with delivery at pace at a distribution level, and consumer benefit has not yet been robustly demonstrated even for higher value transmission schemes. We therefore do not believe that the Early Competition Model should be further considered for distribution projects.

In addition, Ofgem should learn from the experience of competition in connections. Whilst we continue to promote competition in this area, there are particular elements of this regime that we are concerned with. We first raised these to Ofgem in a letter dated 21 March 2017 and more recently in presentation jointly with other DNOs during the RIIO-ED2 planning process. Our experience suggests that many developers, when making the decision on who to appoint to install and own the utility infrastructure will typically opt for the “cheapest cost” option, ignoring any long-term quality of service or cost issues for the end consumer. We are therefore not convinced that the consumer is getting the best deal in the current situation. Furthermore, we do not have any evidence to suggest that the developers actually pass any cost savings resultant from progressing on basis of the IDNO (rather than

DNO) solution on to the customer. This concern has also been highlighted by the Scottish Government¹³.

In conclusion, we support competition in principle where its value for consumers can be clearly demonstrated. However, in the current electricity system, with high constraint costs, a constrained supply chain and fast-approaching Net Zero targets, it is difficult to see any benefit to introducing the additional uncertainty associated with third-party delivery of major network assets and we believe real evidence of benefits is needed before any changes in this area.

Q4. What is your view on the options identified for simplification of incentive regulation? What would be the benefits and costs by comparison to the approaches used in RIIO-2?

RIIO has delivered real benefits for consumers and network customers (as outlined in above) and we continue to believe that should be the starting point for any changes. Radical change would threaten investor confidence at a time when the need for significant investment is critical to enable Net Zero for our communities.

Within this context, we support the aim of simplification of the regulatory framework. It is sensible to look at the lessons learned from RIIO1 delivery and RIIO-2 planning to reduce unnecessary complexity, and to make the regulatory effort and resource burden more proportionate for Ofgem and industry, as well as amending or removing elements that do not deliver what they need to.

We set out our proposals in the following paragraphs and as outlined in our introductory paragraphs within the 'Strategic direction' section of our response, we consider that many of the changes could be considered 'Quick Wins'.

Re-openers – need for process flexibility

Re-opener mechanisms allow network operators to manage necessary investments that are uncertain in need, cost or timing at the point of setting the price control. We support retaining these mechanisms where an appropriate degree of scrutiny is required to protect consumers' interests. However, in our view, within the scope of the FSNR work. Ofgem should seek to identify ways to review the reopener justification process, with the aim of improving flexibility, reducing the prescriptiveness of reopener topics, alleviating the resource burden on both network operators and Ofgem, and expediting approval timelines.

During RIIO-2 negotiations, it was recognised that the reopener application process is not agile. For example, if the need for expenditure is identified one month after a reopener's

¹³ [research-electricity-network-constraints-2024-new-build-heat-standard-final-report.pdf \(www.gov.scot\)](https://www.gov.scot/publications/research-electricity-network-constraints-2024-new-build-heat-standard-final-report/pdf) (Section 4.1.1 Allocation of costs to housing developers)

only application window, then the network operator cannot submit an application unless Ofgem introduce another window; and there is no guarantee that in all instances of need this would happen quickly or indeed at all.

The use of restrictive application windows, and the risk of protracted consultation and decision timescales makes it necessary for licensees to make significant contractual and resource commitments with no certainty of regulatory approval or cost allowances. We firmly believe a more flexible application process and less rigid/prescriptive re-opener categorisation is needed. We also propose that consultation arrangements should be streamlined for investments where the need case is clear (for example, ESO-initiated protection schemes, government / secretary of state mandated investment, or customer-driven connections) and that the process reflects the materiality of the investment.

Volume Drivers – need for re-calibration

The use of volume drivers in RIIO has been partially successful. In RIIO ED1, this tool was used without issue for smart meter delivery related work, where workload was driven by energy supplier smart meter programme rollout.

In RIIO-T2, for generation connections, it has so far provided an efficient and flexible mechanism which reduces the regulatory burden in an area where there is a clear imperative for the work – a licence obligation to connect generation. However, it has suffered from being overly simplistic (e.g. small number of solutions; no recognition of voltage cost driver), limited calibration due to a limited initial data set and it cannot flex in response to varying market costs. As such, the mechanism is effective only for sole-use infrastructure assets; the poor calibration has resulted in excessive numbers of Medium Sized Investment Project (MSIP) reopener applications for shared-use infrastructure with their associated regulatory overheads. We believe that widening the range of solutions and providing for in-period calibration to reflect market costs, especially in volatile market conditions, would be an effective way to streamline and simplify a significant element of the price control.

The potential for re-calibration would be similar to what Ofgem has committed to in RIIO-ED2 for the Polychlorinated biphenyls (PCBs) volume driver. Subject to the qualifications above, increased confidence in the calibration of unit costs would mean that the volume driver approach could be extended to even more transmission activities where need is certain, and costs are most stable. For example, the core inspections and maintenance activities could benefit from a volume driver mechanism (as long as the activities which fall outside this definition, such as HVDC maintenance, are recognised).

Non-Load Investment – NARM framework reform

NARM is a key business planning and monitoring tool, and we fully support the continuing application and development of the NARM framework. However, there are currently gaps in the RIIO framework for asset health, or network risk, related investments resulting in a

‘cliff-edge’ which inhibits effective investment planning and limits the ability of licensees to adjust their plans. The NARM framework sets an ex-ante baseline output of risk benefit and associated allowed expenditure with an adjustment mechanism to provide licensees with the ability to flex their plans in response to emerging issues or changing circumstances. Although, this mechanism works well at Distribution level where asset risk is banded and interventions are non-prescriptive, it is significantly flawed at a Transmission level. We believe Ofgem should create room for amendment of the Transmission NARM framework in the FNSR process. Specifically, our proposal is that Ofgem works with industry to assess:

- **Extending NARM to other asset types:**
 - **Transmission:** NARM only considers seven asset types (for SPT, other licensees have six) with the result that there is no mechanism to adjust plans related to any other asset type. SPT are committed to extending NARM to other assets (and had a RIIO-T2 proposal to do so rejected) but this is a significant undertaking that Ofgem agree will not be complete for RIIO-T3.
 - **Distribution:** DNOs are working as part of the ENA NARM Electricity Distribution Working Group (NEDWG) to develop the extension of NARM to a wider set of asset classes. This does not mean risk is interchangeable, but this extension will help to form a common basis of the level of network risk across operators to help to set required allowances and monitor delivery of risk reduction.
- **De-coupling allowed ET costs from the Long-Term Risk Benefit (LTRB):** The Unit Cost of Risk Benefit ratio used to adjust allowed expenditure does not produce satisfactory results because the correlation between the output (long-term risk benefit, LTRB) and the expenditure is, at best, very weak. This leads to differences between allowances and incurred costs which are unacceptable to both consumers and licensees. In an attempt to mitigate this, Ofgem has made allowance for separate, ex-post, consideration of such projects at Transmission level but only in year three of a five-year price control, the operation of this mechanism has not been completely defined and licensees remain unable to adequately plan investments. This ‘special projects’ mechanism could be considered an example of ex-post assessment but does not work effectively without sufficiently predefined assessment criteria. We believe Ofgem should consider decoupling the allowed costs from the LTRB. Licensees could continue to value options and justify their plan variances using the established NARM framework, but ET non-load investments would instead be planned and approved in two stages. For example, scheme development funding provided as stage one based on licensees’ forecasts, needs case, optioneering and proposal of the preferred option. The second stage would be a cost assessment, with the opportunity to assess any changes from the original scope, during pre-agreed windows. This alternative approach would avoid the need for a complex adjustment mechanism, and the construction funding would be awarded at a point in the project development where there was clearer scope definition and greater cost confidence than with the current arrangement.

- **NARM reporting:** The NARM reporting requirements for the ET sector are highly complex and labour intensive. Significant elements do not, in our view, add any value and should be simplified. Our proposal would be to create greater alignment with the ED sector which does not suffer from the same issues. Specifically, by banding asset risk as opposed to using arduous asset specific risk scores and project risk delivery deltas. Banded asset risk allows tolerances for some project variation and reduces the labour-intensive manual calculation of risk scores and intervention modelling – which is demanding even when mostly automated.

Cost Assessment reform

The RIIO model, in our opinion, remains fit for purpose overall and has demonstrated the ability to evolve for changing circumstances like the increasing risks from Climate Change and current Net Zero targets. The efficiency incentive properties of the Totex approach are a key foundation of the RIIO model and we are concerned that, unless properly assessed, changes to the cost assessment approach could undermine the efficiencies identified as a result of the Totex Incentive Mechanism.

- **Improvements withing the current framework:** We therefore believe that, instead of focussing on separating activities into BAU and non-BAU to be cost assessed in different ways (as suggested within the FSNR Workstream 2 discussions), the FSNR programme of work should look to better utilise the existing processes and tools within the RIIO framework where lessons can be learned, and improvements made. A starting point would be for Ofgem to listen and act upon the key themes below which emerged from recent cross-sector feedback on the RIIO-2 processes within the FSNR Workstream 2 (WG2 meeting 11/05/2023). These suggestions were made as licensees were not made fully aware of the details of the Totex cost review during the RIIO-2 business planning process. The process undertaken by Ofgem was not shared until Draft Determination documents were published, and instead ‘approaches’ were signalled in various documents prior to this point.
 - Simplification AND transparency of a cost assessment process is crucial to stakeholder acceptance.
 - Cost assessment is a complex process and there is no, ‘one size fits all’ approach; rather a range of models is likely to be required.
 - Principles need to be established and agreed to apply relevant models e.g. a form of regression analysis for repeatable activities, benchmarking for discrete items, derivation of relevant cost factors etc. In each approach, however, limitations must be recognised; checks and balances may be necessary to ensure fair and reasonable outcomes for stakeholders.
 - Cost efficiency principles should be clear and unambiguous; balanced against asset reliability and network resilience to ensure existing and future consumers receive value for money projects.

- Regulatory treatment must recognise that – in a portfolio contract like the price control – any cost assessment process must properly consider materiality and proportionality in its application.
- **Regulatory Reporting Process (RRP):** In addition, although it is important to capture the right information for cost assessment, it is equally vital that such information is clear and unambiguous in its definition. The annual Regulatory Reporting Process (RRP) is fundamental to understanding whether the data and information captured therein is producing the right output for all stakeholders and the capture is at a proportionate level of detail.

On proportionality, we are seeing that asset details are being extended and recorded at hugely varying degrees of granularity. For example, in Transmission, the unit costs that may exist for each project could include: tens of millions of pounds for FACTS devices, single digit million pounds for transformers, £100ks for circuit breakers and £10ks for Protection, Control, Telecoms and Metering (PCTM).

There is merit in undertaking annual benchmarking – learning from experience – and mutually agreeing changes to Regulatory Instructions and Guidance (RIGs) to address deficiencies e.g., data gaps or reporting inconsistencies. to improve future regulatory understanding and ensure a proportionate level of reporting.

- **Specific Electricity Transmission considerations:** Whilst we propose the above should be considered as 'Quick Win' improvements, we do acknowledge that in the Electricity Transmission, the nature of the activities and changing market conditions may mean that more significant change should be assessed. In that sector, it is becoming increasingly difficult to utilise the traditional RIIO cost assessment approach and tools.

The transmission price control, in respect of load and non-load investment, can be viewed as a fixed price contract for a range of projects with differing levels of maturity (i.e. some at concept approval through to those in construction) based on a 'snapshot' of the future. The adjustments are predominantly geared towards additional projects. This creates unique challenges for TOs under the current RIIO framework as most of the investment is based on engineering cost estimates (at settlement) rather than competitively awarded contracts. In this respect, protections (e.g. remeasure, variation to ground conditions etc) that are widely utilised in standard commercial contracts are not available to TOs.

As an example, a notable feature of RIIO-T2, is where we sought cost estimates from manufacturers for novel equipment (e.g. FACTS devices, non-SF₆ switchgear etc); these estimates are significantly below the current competitively tendered prices. The future price control framework should more clearly recognise what areas of

costs can be controlled TOs and what cannot. Increasingly, the market is moving away from fixed price contracts. By way of an example, most competitively tendered civil contracts relating to SPT projects are not fixed price; they are re-measurable based on an extensive set of rates and bills of quantity. The rates are set against civil construction indices (e.g. cost of concrete (£/m³) per strength requirement). The physical values are measured and checked by Quantity Surveyors, which is a routine process within SPT. These civil costs are a significant contributor to the cost as well as the cost variability of a project. Therefore, if our concerns outlined in our response to question 5 could be alleviated, it may be appropriate, to consider alternative treatment for such contracts within project cost assessment e.g. open book cost plus arrangement.

Q5. What are the network activities where there would be benefits for a move to an ex-post monitoring regime, and what would be the associated costs?

We believe that any potential expansion of the use of ex post monitoring, or a cost-plus regime should not be ruled out, but and proposals need further assessment and a full impact assessment by Ofgem.

Whilst we can see that theoretically this approach could allow investment delivery at pace where there is a clear needs case but a significant level of uncertainty in forecast costs e.g. due to an imbalance in power between network operators and the supply chain, we have concerns with network operators having to bear the risk of being faced with a level of ex-post clawback that is unanticipated.

There would need to be a considerable cultural and behavioural change within Ofgem if a move to cost plus was to be successful. Network operators and investors would need to receive sufficient assurances that Ofgem would not apply retrospective regulation adjustments as more information is revealed over one or more price control periods, or new Ofgem staff are employed, and original expenditure agreements look different to Ofgem in hindsight. We think this is a particular risk to networks as there are a significant number of Ofgem staff focussed on networks and they have built up a detailed level of knowledge and / or interest over a number of years. This differs from the DCC, which is subject to cost plus regulation but only has a very small pool of Ofgem staff involved in regulating this area.

That being said, as outlined in our response to question 4, if our concerns around hindsight regulation risk could be mitigated, we would be open to exploring further what categories of activities could be regulated on a cost-plus basis. We can see that there could be some activities where an ex-post / cost plus regime would avoid the risk to consumers of inevitably inaccurate forecasts and provide licensees with certainty that necessary, efficient expenditure would be funded. Initial examples include Faults and Repairs activities, and the costs of deploying Strategic Spares in response to faults or failures, which based on RIIO-T1 outturn are estimated to account for less than 1% of expenditure in a typical price control period.

Q6. What are the benefits and costs of this approach for Electricity Transmission by comparison to an evolution of the approach in RIIO-2, and what are the implementation barriers?

	1. Plan	2. Design	3. Procure & Build	4. Maintain	5. Review
Replacement/ BAU Archetype 2	Licensee Ofgem	Licensee Ofgem	Licensee	Licensee	FSO Ofgem
Reinforcement Archetype 1/2	FSO Licensee Ofgem	FSO Ofgem Licensee	Licensee (ex-ante allowance or open book) OR Competition	Licensee	FSO Ofgem
New Build Archetype 1	FSO	FSO Ofgem	Competition OR Licensee (open book)	Licensee OR Competition	FSO Ofgem

Figure 5. ET Example Model (for discussion)

With reference to Ofgem's 'Figure 5 – ET Example Model', we believe that Ofgem's proposal is flawed because:

- For New Build and for Reinforcement activities, the example ET model has the FSO playing a major role (indeed without any role for the TO in a New Build situation). This causes us significant concern. As set out in our response to Q2, we do not believe this will bring benefits to consumers and in fact will reduce co-ordination and efficiency and increase cost and risk. At best this may simply modify the parties involved in any information asymmetry, and at worst, may lead to the loss of significant expertise which currently exists within network operators. The TOs' significant experience, local knowledge and stakeholder relationships make them ideally placed to continue to identify solutions on their networks that would then feed into the FSO's detailed economic and system analysis, identifying the optimal set of options for flexibility, reinforcement, and other solutions to network requirements.
- Transmission activities cannot and should not be separated in the way suggested and responsibilities passed to different parties.
 - TOs have a duty under the Electricity Act 1989 and our licence obligations to develop and maintain an efficient, coordinated and economical electricity system. Separation of responsibilities for planning and design for different activities will only serve to introduce barriers to our ability to fulfil our

statutory duty and licence obligation to ensure solutions are coordinated, economical and efficient.

- In some instances, a single project will seek to economically and efficiently address multiple drivers for investment, integrating asset replacement, reinforcement and new build requirements. This is evident in the programme of works being taken forward under the ASTI framework. This is a current issue that can be managed as the same licensee has the responsibility to develop and maintain the network in its area, encompassing both load and non-load related planning.
- **There is significant risk in introducing another third party in the existing network competitive procurement process.** As outlined in our response to Q3, all but a small percentage of our activities are competitively procured, and we fundamentally cannot identify where the benefits will come from by introducing a third party into an already complex and challenging marketplace.
- **The FSO should not have a reviewer role.** This suggestion is included in the proposed model without a clear rationale or scope outline. We are unclear what review responsibilities Ofgem is proposing to delegate or share with the FSO and why they would have the remit to undertake this role or if they would have the expertise necessary in the areas they are expected to review. Also, we would question the appropriateness of the FSO being involved in reviewing the activities where it also has responsibility for delivering.

Q7. What is the potential for Electricity Distribution planning and commissioning to move to an alternative model by the end of RIIO-2, and what might be the benefits and costs of doing so?

It is essential that any proposed reform is fully consulted upon, and benefits fully assessed for Electricity Distribution specifically, avoiding any automatic rollout of changes made to other sectors. The different characteristics of Electricity Distribution must be properly considered. For example, Distribution has a different network typology – radial network with many voltages and hundreds of customer connections. This compares to Transmission – meshed with fewer voltages and tens of connections and fewer voltage differences. In terms of scale of investment, the Distribution network has a high volume of relatively low value asset needs whereas Transmission has a small number of very high value projects.

The consultation does not provide any specific example Distribution model for discussion, so we are unable to comment specifically beyond those views expressed above and in our responses to the other questions.

Q8. What is your view on the most effective approach to regulation of Gas Distribution and Transmission beyond RIIO-2? What would be the benefits and costs of moving to a simpler approach to regulation of the ongoing costs of operating and maintaining the network?

We have no specific comments in relation to the Gas networks, but we believe our responses to question 7 are equally applicable here.

Q9. Should there be a shorter-term price control in gas distribution and/or gas transmission, and how could this work in practice?

We have no comment on the duration of price controls in the Gas sector.

Q10. Would there need to be any changes to maintain a stable and consistent financial framework if we were to make greater use of different regulatory archetypes, and if so, what would those changes need to be?

At this stage, prior to final decisions on frameworks, procedures, timing and detailed methodologies on how future price controls may look, it is difficult to provide definitive recommendations on how to address any impact on finance. However, we look forward to contributing as the process matures.

Stakeholders support the stability and predictability of the current RIIO financial framework. The approach is well understood by investors and the wider financial and economic community. However, we do expect a further evolution of the financial framework, specifically on the approach to assessing financeability. In Electricity Transmission we are already being faced with elements of archetype 1 investment which span beyond the expected RIIO-3 price control time period, in addition to the traditional RIIO framework of archetype 2.

In both our RIIO-T2 and RIIO-ED2 business plans, we raised concerns over the sticking plaster approach to financeability, where the assessment is limited to the 5-year price control period, with no consideration given to the longer-term impact of decisions on companies' abilities to maintain appropriate credit ratings and raise capital. Similarly, financeability needs to be assessed from the perspective of both debt and equity investors. The current approach will be inadequate in a scenario where networks need to compete globally to raise significant amounts of capital, especially in more turbulent macro- and micro-economic circumstances.

Any future changes should be carefully considered. Excessive change that decreases sectoral transparency or predictability or increases in complexity, without clear associated benefits, could make the sector less attractive to investors.

The transition to net zero will require significant, sustainable investment over the coming years. This task is now vital and urgent. It is therefore imperative that investor confidence is not damaged nor is the FSNR interpreted as an attack on investor returns.

Q11 Do you have any views on our proposed analytical approach?

As set out within the 'Strategic direction' section of our response, it is important that this work remains focussed on the primary aim of enabling network investment at considerable pace and scale to accelerate the Net Zero transition. With this in mind, alongside our view that RIIO should remain at the core of the future regulatory framework, our suggestion is that the FSNR work moves on from the Archetype terminology to a more practical and tangible approach which considers change from two perspectives in parallel. Our specific suggestions is that Ofgem's FSNR programme structures discussions and future work around the categories of 'Quick Wins' and 'Significant Change'.

We fully agree that any significant change being proposed to the regulatory framework should be assessed against the counterfactual of the RIIO-2 status quo position. However, whilst we can see the value in using Ofgem's consumer interest framework as a starting point for the Impact Assessment, we believe that, as the primary driver for change is to enable network investment at scale and pace, then the following assessment areas should also be embedded:

- Regulatory resource burden;
- speed of decision making;
- speed of investment;
- supply chain challenges;
- planning & consenting delays; and,
- sector attractiveness to investors.

We recognise that some of these challenges such as supply chain and planning cannot be removed as a result of Ofgem changes, as there are external drivers at play. However, some changes could make these aspects worse. For example, replacing the TO as the party responsible for competitively procuring for key Transmission assets, or even signalling such a potential change, could create confusion amongst the supply chain and also negatively impact investor confidence.